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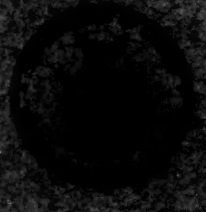

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Proceedings of the 16th annual meeting of the International Association of Industrial Accident Boards and Commissions, Buffalo, N. Y., October 8–11, 1929. Bulletin No. 511.

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Wages and hours of labor in the iron and steel industry, 1929. Bulletin No. 513.

Pennsylvania industrial wage data. Bulletin No. 515.

Hours and earnings in bituminous coal mining, 1929. Bulletin No. 516.

Decisions of courts and opinions affecting labor, 1927–1928. Bulletin No. 517.

Personnel research agencies; 1930 edition. Bulletin No. 518.

Safety code for [illegible]. Bulletin No. 519.

Social and economic characteristics of negro families in Philadelphia, 1929. Bulletin No. 520.

[illegible] PRICE

Union scales of wages and hours, 1929. Bulletin No. 514.

Wholesale prices, 1929. Bulletin No. 521.

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This Issue in Brief

Of 543 men who applied to the Industrial Aid Society of Boston for assistance in finding work, about half were heads of families, having an average of 3.2 children each. Thirty-eight per cent were foreign born, but three-fourths of those who had been born in the United States were natives of Boston and had lived there all their lives. Nearly half of the men were unemployed because of having been laid off on account of seasonal or business depression. The period of unemployment before applying to the society averaged 4½ months. Page 1.

The new agreement between the hosiery manufacturers and the full-fashioned hosiery workers' union provides for an unemployment insurance scheme. The employers, beginning August 1, 1930, will contribute to the fund at the rate of 1 per cent of their weekly pay roll. Contributions by the workers do not begin until September 1, 1931, and will be in an amount equal to one-half of the sum contributed by the employers. Page 103.

The hazards of tuberculosis to wage earners, whether due to their social-economic status or to specific occupational conditions, are shown in a recent study of the records of the Metropolitan Life Insurance Co. The tuberculosis death rates of the industrial policyholders were higher than those of the ordinary policyholders or of the general population in every age group except 65 to 74. In the age group 15 to 19 years, the rate for the industrial group was 18 per cent higher than for the general population in the registration States, the discrepancy becoming progressively greater with each succeeding age group up to 45 to 54 years. The industrial group was found to be at an even greater disadvantage when compared with the ordinary policyholders, their death rate in the age group 45 to 54 years being 3⅓ times as great. Page 57.

"Contracting," or the acceptance by the individual worker of outside work to be done by him after working hours or on Sundays or holidays, often at a reduced rate, is prohibited or controlled by many of the building-trades agreements. Because of the nature of the work in the building trades, they are especially subject to such practices, which are recognized as being unfair to the regular employing contractor. Practically all of the agreements of the carpenters, electrical workers, and painters contain provisions on the subject. Page 8.

Unemployment is worse this summer than it was last summer in most of the European countries. The number of unemployed is about three and a half times as great in Finland and Rumania as it was last year, has almost trebled in Belgium, and is more than two and a half times greater in France. Large increases in the number of persons out of work are shown in Italy, Great Britain, Switzerland, Hungary, and Austria. The only countries to show an improvement in the employment situation were Denmark, Norway, and Yugoslavia. Page 26.

The members of the 146 cooperative gasoline filling stations received in patronage dividends and interest on share capital nearly three-quarters of a million dollars. This represented their savings on the 1929 business in the two commodities handled by these associations—gasoline and motor oils. The sales of these stations in 1929 reached the sum of $10,782,049, and their net profit amounted to $1,326,791—12 per cent of the sales and 107.1 per cent on the capital invested. Page 11.

The death rate from accidents in the quarry industry in 1928 was the lowest ever recorded. The injury rate was also lower than for any other year for which there are complete data. The death rate per thousand 300-day workers was 1.46 as compared with 1.63 in 1927, while the injury rate was 129.95 as compared with 162.92. Page 54.

A new social-insurance law has been enacted in France, effective July 1, 1930, which provides for compulsory insurance for sickness, maternity, invalidity, old age, and death. The funds are to be obtained by contributions of 8 per cent of wages, borne equally by the industrial workers and their employers; in the case of agricultural laborers the contribution is fixed at 5 francs per month for all but the old-age benefits and 2 per cent of the basic wage for the old-age pensions. Page 76.

A recent study by the Bureau of Labor Statistics covers 20 important time-work trades in 67 leading cities, showing the hourly wage rates and the hours per week established by agreement. Preliminary figures are given on page . 138

Discrimination against older workers, when taking on additional help really exists, even though the employer himself may be unaware of it. Such has been the experience of the Employment Aid of San Francisco, established for the sole purpose of finding work for the middle-aged. Over an 8-month period, 1,108 persons applied to it for positions, but although the bureau specializes in this kind of work, it was able to place only 242—74 men and 168 women. In no case was the bureau able to find the applicant a position with a large employer; all the jobs filled were in smaller offices, factories, stores, etc. Some of the large employers at first proposed to help the bureau in its work, but found it impracticable to do so. Page 31.

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Study of Unemployed Men Who Applied for Work at a Boston Agency During January, 1930

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WHO are the unemployed? Are they young or old, married or single? Are they native or foreign born, and, if foreign born, of what nationalities? From what channels of industry do they come, and why are they out of work? In an effort to answer these questions for a small portion of the vast army of men who were unemployed in the fall of 1929, the records of 543 men who applied for work during January, 1930, were studied. These men were clients of the Industrial Aid Society, a social agency for men acting in part as a free employment agency in the city of Boston.

The group of 543 unemployed men whose records formed the basis for this study may be summarily described as follows: About half were heads of families, having, on an average, 3.2 children each. Thirty-eight per cent were foreign born; among them the Italians were largely represented. Three out of four of the applicants had been in Boston at least 15 years. The average age of all applicants was 35 years. The men had been engaged in various occupations, and, among all of them, being laid off was the most common reason for the loss of their jobs. They were unemployed, on an average, about four and one-half months before applying at the Industrial Aid Society for work. One-fourth of the men were handicapped in some way, usually by physical defects. Approximately one in eight of the applicants had been placed in jobs by the society at the time the data used in this study were tabulated.

Marital Status and Dependents

OF THE 537 applicants who reported as to their marital condition, 245 were single men, 243 were married at the time of application, and the remaining 49 were widowed, divorced, or separated. The large proportion of single men may be accounted for in part by the fact that the Industrial Aid Society sometimes gives them relief as well as employment. Families obtain relief from the Overseers of Public Welfare or private charitable organizations.

The total number of dependents reported by the men was 895. It is likely, however, that this figure does not approach the actual number, since this information was not given a definite place on the appli-

cation blank and therefore was reported only casually. This is particularly true of the 245 single men, who mentioned only 9 dependents, whereas it is certain that a large number of them must have been responsible for helping in the support of their families.

There were at least 243 women, the wives of the married men, relying on these clients for support. In addition, some of the former wives of the 28 divorced or separated applicants were receiving from them at least partial support. Slightly less than one-third of the men with families had either no children, or grown children who no longer looked to them for support, but the remaining two-thirds each had, on an average, 3.2 young, dependent children. In addition, 10 of the wives were reported pregnant. As might be expected in a group where the majority were still young men, most of the families were small. Of the families where there were children, almost half had only one or two children while almost one-fourth had more than four per family, and 11 of the men had eight or more children. In all, 643 minors were in danger of being undernourished, poorly clothed, or forced to leave school to seek work because their fathers were unemployed.

Nativity

SIXTY per cent of the 518 men reporting birthplace were native-born Americans, 26 per cent also being native to Boston, while the birthplaces of the remainder of these American born were distributed rather evenly between other places in Massachusetts and the rest of the United States. Forty per cent of the total number were foreign born, whereas at the time of the 1920 census only 32 per cent of the total population of Boston were foreign. Nearly one-half of the foreign-born applicants were Italians, whereas this race makes up only one-sixth of the foreign born in the general population. The foreign born in general and the Italians in particular formed a disproportionately large percentage of the unemployed group. The Russians and Irish, however, applied for aid less often than one might expect from their quotas in the total population. The proportion of Canadians, English, and Scotch remained about the same. Nineteen countries were represented among the foreign-born applicants. The details are shown in Table 1.

TABLE 1.—BIRTHPLACES OF 518 APPLICANTS FOR WORK

Birthplace	Applicants for work		Birthplace	Applicants for work	
	Number	Per cent		Number	Per cent
Native born:			Foreign born—Continued.		
Boston	133	25.7	England and Scotland	14	2.7
Other Massachusetts	82	15.8	Russia	13	2.5
Other United States	95	18.3	Armenia	5	1.0
			Poland	5	1.0
Total	310	59.8	Other [1]	20	3.8
Foreign born:			Total	208	40.2
Italy	95	18.3			
Canada	35	6.8	Grand total	[2] 518	100.0
Ireland	21	4.1			

[1] Syria, 4; Germany, 3; Portugal, 2; Sweden, 2; Greece, 2; Belgium, 2; and 1 each, Austria, France, India, British West Indies, South Africa.

[2] Birthplace not reported for 25 applicants.

Length of Time in Boston

Of the applicants who reported at this point very few were strangers in Boston, so that unfamiliarity with conditions in the city was seldom a valid excuse for their being unable to find employment. Only 1 in 12 of those who stated the period of their residence had been there less than a year. Three-fourths of the clients who were born in the United States were also native to Boston, and had lived there all their lives. Over half of the foreign-born applicants had lived at least 15 years in Boston. Of the entire group for whom this information was obtained approximately three out of four had either lived in the city since birth or had been there 15 years or more.

TABLE 2.—LENGTH OF TIME IN BOSTON OF 241 [1] APPLICANTS FOR WORK, BY NATIVITY

Length of time in Boston	Nativity							
	Native born		Foreign born		Not stated		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Under 1 year	13	7.7	7	10.1	-------	-------	20	8.3
1 year and under 5 years	7	4.1	7	10.1	-------	-------	14	5.8
5 years and under 10 years	7	4.1	12	17.4	-------	-------	19	7.9
10 years and under 15 years	5	3.0	6	8.7	-------	-------	11	4.5
15 years and over	11	6.5	37	53.7	3	100.0	51	21.2
Since birth	126	74.6	-------	-------	-------	-------	126	52.3
Total	169	100.0	69	100.0	3	100.0	241	100.0

[1] 302 did not state length of time in Boston. Of these, however, 26 foreign born gave the length of time they had been in the United States as follows: Less than 1 year, 1; 5 and under 10 years, 2; 10 and under 15 years, 2; 15 and under 20 years, 5; 20 and under 25 years, 5; 25 years and more, 11.

Age of Applicants

It has been frequently charged that men past middle age compose the "scrap heap" of industry. Forty-five is often referred to as the "dangerous age" for men in industry, but this study shows that men of 45 or over formed a smaller proportion of the total group applying for work than they did of the general population of 15 years of age or over, according to the census of 1920. The average of the applicants who gave their ages was 35 years. The group 20 to 30 years, however, held the largest number. Of the 24 men who lost their jobs because of business reorganization, six were between 45 and 49 and half were over 45. Among the men who were unemployed after having been laid off, three out of four were under 45 years of age.

Most of the older men were foreign-born workers. Their modal age group was from 50 to 54, while that of the native Americans was only 20 to 24. The average foreign client was 40.8 years of age, more than nine years the senior of the average native born, who was 31.4 years old. The distribution by age group and nativity is shown in Table 3.

TABLE 3.—AGE AND NATIVITY OF 543 APPLICANTS FOR WORK

Age	Nativity							
	Native born		Foreign born		Not stated		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
15 to 19 years	50	16.1	13	6.2	2	8.0	65	12.0
20 to 24 years	70	22.6	17	8.1	5	20.0	92	16.9
25 to 29 years	56	18.1	23	11.0	2	8.0	81	14.9
30 to 34 years	31	10.0	21	10.0	1	4.0	53	9.8
35 to 39 years	25	8.1	19	9.1	1	4.0	45	8.3
40 to 44 years	20	6.5	26	12.9	1	4.0	47	8.7
45 to 49 years	22	7.1	29	13.9	2	8.0	53	9.8
50 to 54 years	16	5.2	32	15.4	2	8.0	50	9.2
55 to 59 years	7	2.2	9	4.3	1	4.0	17	3.1
60 to 64 years	11	3.5	11	5.3	2	8.0	24	4.4
65 years and over	2	.6	4	1.9			6	1.1
Not stated			4	1.9	6	24.0	10	1.8
Total	310	100.0	208	100.0	25	100.0	543	100.0

Occupations of Applicants

TABLE 4 shows how the major occupational divisions were represented. No one specific type of job was outstanding in claiming a large number of men. One in ten was a general laborer, and nearly as many were carpenters or building workers, and a slightly smaller number were employed in hotels or restaurants. Chauffeurs and drivers made up 6.3 per cent of the total, and after this group ranked the railway laborers, janitors or porters, painters, and machinists, or mechanics. Twenty types of factory work were reported, but most of the factory men had been in plants manufacturing shoes, food products, and clothing or textiles.

Young men had been employed especially as chauffeurs or drivers, factory operatives, helpers and on odd jobs, and as shippers and packers. Older men had come in large numbers from work as janitors and porters, laborers, and the seasonal building trades.

TABLE 4.—LAST OCCUPATION OF APPLICANTS FOR WORK

Occupation	Unemployed men		Occupation	Unemployed men	
	Number	Per cent		Number	Per cent
Factory work:			Domestic service:		
Shoes	15	2.8	Janitor or porter	30	5.5
Clothing and textiles	9	1.7	Hotel or restaurant work	43	7.9
Food products	11	2.0	Watchman, doorman, elevator operator	9	1.7
Cigars	5	.9	Office boy, usher, etc	6	1.1
Other [1]	34	6.3	Total	88	16.2
Total	74	13.7			
Other trades:			Clerical or sales work	18	3.3
Carpenter or building worker	48	8.8	Other:		
Painter	27	5.0	General labor	55	10.1
Machinist or mechanic	27	5.0	Farming or gardening	11	2.0
Total	102	18.8	Helpers and odd jobs	19	3.5
Transportation:			Work in market	13	2.4
Railway labor	31	5.7	Confined in jail	6	1.1
Chauffeur or driver	34	6.3	Other	34	6.3
Shipper or packer	14	2.6	Total	138	25.4
Garage or gas station	11	2.0			
Seaman or fisherman	7	1.3	Not stated or none	19	3.5
Longshoreman	7	1.3			
Total	104	19.2	Grand total	543	100.0

[1] Automobile, 4; rubber, 4; box, 4; wireless and electric assemblers, 6; foundry, 2; punch-press operators, 2; toy, 2; can, 2; and 1 each—fastener, aeronautical, pocketbook, brick, chain ring, wire, lampshade, not stated.

Reasons for Unemployment

"LAID OFF" was by far the most frequent reason for the unemployment of these clients, as might be expected during a month like January, 1930, which came at the worst of the country-wide business depression, besides being the time of year when weather conditions always lessen employment opportunities. Nearly one-half (48.3 per cent) of the men reporting on this point gave this reason for their unemployment. A dozen more or less scattered causes were reported for the rest of the men; the most important were dissatisfaction with the job, the completion of temporary work, poor health, and dismissal because of business reorganization.

Age was an influence in only a few of these factors. More men, proportionately, over 50 years of age lost their jobs because of poor health, than because of business reorganization. More than one-half of those who left because they were dissatisfied with their work were under 30, single young men, for the most part, who had not yet found congenial work and who were still free to move from one job to another without involving a dependent family. Most of the men just released from jail or on probation were young, as were those newly arrived in Boston, and those who were looking for their first positions.

The details are given in Table 5.

TABLE 5.—REASONS FOR UNEMPLOYMENT IN RELATION TO AGE OF 385 [1] APPLICANTS FOR WORK

Reason for unemployment	Age group												Total	
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65 and over	Not stated	Number	Per cent
Laid off due to seasonal or business depression	22	25	34	25	18	11	20	16	4	7	1	3	186	48.3
Dissatisfied with job	6	12	6	7	1	----	2	2	3	3	----	----	42	10.9
Finished temporary job	6	5	6	2	4	3	2	4	1	2	1	1	37	9.6
Poor health	1	6	3	2	2	3	3	2	2	3	3	----	30	7.8
Dismissed due to reorganization of business	----	3	3	3	1	2	6	3	----	2	----	1	24	6.2
Underemployed at present	----	4	4	----	1	----	2	3	1	1	----	1	17	4.4
Accident [2]	1	1	2	1	----	3	3	1	1	----	----	----	13	3.4
Newly arrived in Boston	----	6	1	----	1	2	1	1	----	----	----	----	12	3.1
Promised job did not materialize	2	1	2	1	----	----	----	----	1	----	----	----	7	1.8
Just released from jail	----	2	2	1	----	----	1	----	----	1	----	----	7	1.8
Never worked before	4	----	1	----	----	----	----	----	----	----	----	----	5	1.3
Other [3]	1	1	----	1	----	1	----	1	----	----	----	----	5	1.3
All reasons	43	66	64	43	28	25	40	33	13	19	5	6	385	100.0

[1] 158 did not state reasons.
[2] Includes 8 industrial accidents.
[3] 1 each: Strike, on probation, left job to build home for self, home duties, chain stores ruined business.

Length of Period of Unemployment

FOR an average period of nearly four and one-half months after losing their jobs the 373 men reporting on this point had lived on their savings or incomes from other sources and had tried to find work, before applying to the Industrial Aid Society. More than one-third of them had been unemployed between one and three months. Twenty-five had been out of work over a year before asking help from this agency. Twelve of the men (3.2 per cent of those

giving this information) were still working at part-time jobs when they applied and may be classed as underemployed. They were anxious to secure full-time or at least more remunerative work.

The period of unemployment for the 373 men who furnished these data is given in Table 6.

TABLE 6.—LENGTH OF TIME 373 MEN WERE UNEMPLOYED BEFORE APPLYING TO BOSTON INDUSTRIAL AID SOCIETY

Period of unemployment	Number	Per cent	Period of unemployment	Number	Per cent
Under 1 week	4	1.1	2 years or over	10	2.7
1 week and under 2 weeks	27	7.2	Indefinite period, short	26	7.0
2 weeks and under 1 month	49	13.1	Indefinite period, long	4	1.1
1 month and under 3 months	128	34.3	Underemployed at time of application	12	3.2
3 and under 6 months	63	16.9			
6 and under 9 months	30	8.1	Total	[1] 373	100.0
9 months and under 1 year	5	1.3			
1 year and under 2 years	15	4.0			

[1] Length of time out of work not reported for 170 applicants.

Handicaps

FOR one out of every four of these men the problem of finding positions in industry was complicated because he was handicapped in some way. One hundred and thirty-four men reported 148 disabilities. Over two-thirds of this group had physical defects; thus, 18 per cent were incapacitated by rheumatism or a recent operation or accident, although they were able to take work which was not too strenuous; nearly as many had either lost a limb, or were otherwise deformed or lame; one in six had heart trouble, digestive trouble, or was suffering from general bad health; other frequently reported ailments were defective eyesight, hearing, or speech, and a tendency toward tuberculosis. Of the 39 men who had nonphysical handicaps (29 per cent of the group), 15 were affected by acute nervous or mental trouble; 6 were hard to place and had trouble keeping their jobs because they drank; 18 were either recently released from jail or were on parole at the time they applied, and were likley to be discriminated against by employers or fellow workers on this account; 12 other miscellaneous handicaps were reported.

Placements

SIXTY-SIX of the men—12.2 per cent of the total group of applicants—had been placed in jobs at the time their records were read; of these, 54 had secured permanent and 12 temporary positions. In addition, at least 11 secured work by their own efforts. A few who were unemployable because of advanced age or other handicaps were placed in institutions; some were referred to other agencies able to assist them. Several men refused work which was offered to them, or failed to interview a prospective employer to whom they had been sent, and were then dropped by the Industrial Aid Society.

Although the age distribution of the men who were placed followed rather closely that of the entire group of applicants, a slight preference was shown for the younger men. One-half of those for whom work was secured were under 30, and more men in the age groups 20 to 24

and 25 to 29 than in any other age groups obtained jobs. Four of the eleven men between 60 and 65 were placed; these older men were willing to take work which often paid only board and room, rather than to enter an institution or become otherwise dependent on charity. The men between 50 and 60 were hardest to place. The average age of the men who secured work through the society's efforts was 33 years.

The statement below shows the distribution of the men placed, by age group:

	Number placed
15 to 19 years	9
20 to 24 years	11
25 to 29 years	12
30 to 34 years	5
35 to 39 years	4
40 to 44 years	5
45 to 49 years	7
50 to 54 years	3
55 to 59 years	2
60 to 64 years	4
Age not stated	4
Total	66

Nearly one-half (30) of the men entered domestic and personal service, taking jobs as janitors or porters, in hotels or restaurants, as elevator operators, or as hospital orderlies. Eight went to work for manufacturing concerns, and seven took clerical or selling jobs. Most of the rest took work as taxi or truck drivers, delivering circulars, farm laborers, painters, or carpenters. Only a few records gave the wages which these men were to receive, and this data is hardly significant because so many of them took jobs where they received a low money wage, but were to be provided with board and room.

The statement below shows the number of men for whom each type of job was secured:

	Number
Janitor or porter	16
Hotel or restaurant	10
For manufacturing concern	8
Clerical or selling	7
Taxi or truck driver	4
Delivering circulars	4
Farm work	3
Painter or carpenter	3
Elevator operator	2
Hospital orderly	2
Other [1]	7
Total	66

[1] 1 each: Seaman, baker, caring for invalid, stableman, vaudeville, for Marsters' Tours, for Baker Memorial.

Provisions in Collective Agreements Regarding Union Members Doing Work on Their Own Account

OWING to the handicraft character of many of the building trades, there is the possibility that the individual worker may solicit or accept work on his own account, thus becoming a competitor of the employing contractor. For instance, a carpenter regularly employed by a contractor, may undertake, after his regular hours or on holidays, to build a garage or repair a porch for a private individual, and in doing so may quote a price considerably below what the work could be done for by a contractor paying the union wage scale. The jobs which can be so undertaken are mostly small, but in total may represent a fairly important part of local construction.

This practice of doing outside work, usually referred to as "contracting," is very generally recognized by the building-trades unions as "unfair" to the legitimate employers, and many collective agreements specifically prohibit contracting or provide for definite control of the conditions under which union members may become contractors.

In a study of about 400 agreements of building-trades unions it was found that practically all the agreements of carpenters, electrical workers, and painters contained provisions either prohibiting or controlling contracting by employees. Such provisions were also found in a large number of agreements of lathers, plasterers, plumbers, roofers, and sheet-metal workers. In other building trades such as the structural-iron workers there is little possibility of the individual worker becoming a competitor of the employing contractor, owing to the character of the work.

Those building-trade agreements which forbid all contracting by members provide for a fine of from $5 to $50 upon any member who violates the agreement, while a few of the agreements provide for expulsion from the union.

Conditions under which "Contracting" is Permitted

CONDITIONS prescribed in trade agreements under which employees may temporarily do work on their own account vary widely. Two agreements permit superannuated or incapacitated employees to do work on their own time. Two provide that employees shall be allowed to take work on their own time only during strikes, lockouts, or unemployment, and that in such cases the member must secure a permit from the business agent for each job. Ten agreements provide that a member without employment who finds a job to be done must report it to a recognized contractor, who, if he secures the job, must employ that member for at least the time necessary to complete the job; one of these agreements further provides that if the member can not find a contractor who will take the job he may do the work, provided investigation by the business agent shows that the member will receive an amount to cover the cost of material and the regular rate of wages. Two agreements permit members to take repair jobs not exceeding $25 in amount. Seven agreements allow a member to do job work provided he furnishes all the materials; one of these limits the amount of work to $25, one to $100, and one to $200. Two agreements provide that "no member regularly employed on an average of four days

a week shall contract for work"; there is a fine of $25 for violation of this provision. An unemployed member may contract for work, under the provisions of three agreements, but he must receive the recognized price of contractors signing agreements with the unions. Ten agreements permit members to do work on their own homes, or on the homes of brother members; one of these stipulates that such work shall be done gratis; another limits work done for a fellow member to the amount of $35, but specifies that the regular rate of wages shall be paid for such work; another provides that a member shall secure a home builder's permit, which covers one house on one site but does not apply to a house built for speculative purposes.

Members becoming regular contractors.—A large number of building-trades agreements regulate the conditions under which the employees may become regular contractors, as well as the conditions for their reinstatement in the union if they discontinue contracting. The majority of these agreements require a member who wishes to become a contractor to make an application in writing to the union; if he meets all of the conditions a withdrawal card is issued to him in 30, 60, or 90 days after application. In three instances the member is required to take an examination as to his qualifications to read plans and estimate on work. In two cases he must furnish security for the payment of weekly wages to his employees, and must carry workmen's compensation insurance. Three agreements stipulate that their contractor-members must establish a place of business, sign and live up to the agreement of the union with other contractors, and employ from one to three journeymen continuously. The reinstatement provision varies in the different trades. One agreement provides that a contractor member may be reinstated within three months on the payment of $10 and all dues and assessments for the time he was out of the union. One agreement stipulates that a contractor member may be reinstated within six months after becoming a contractor, on the payment of all dues plus $10, but after six months he must make application in the usual manner and pay the regular initiation fee; another provides for reinstatement within six months on payment of full initiation fee provided the returning member has not violated any law of the union. Five agreements provide that contractor members may not be reinstated for a period of six months; two will not reinstate for one year. One agreement provides that a contractor member may be reinstated within one year on the payment of $50, but after one year the full initiation fee must be paid; another provides that a member holding an honorable withdrawal card may be reinstated within one year on payment of $5, and after one year on payment of $75. In a few cases contractor members returning to the union must make application and pay the full initiation fees as new members.

Types of Agreements

THE following are examples of the provisions regarding employees doing work on their own time, or becoming contractors, as they appear in the various building-trade agreements:

Asbestos workers.—Union agrees not to contract, subcontract, or estimate on work, nor allow its membership to do so; nor to act in any trade capacity other than as workmen.

Bricklayers, masons, and plasterers.—Any member who becomes an employer must deposit his card of membership in said union, and his membership shall cease except his mortuary benefit therein.

Any member wishing to contract must withdraw from the union. Within one year he may be reinstated on the payment of $50; over one year he must pay the regular initiation fee.

Carpenters and joiners.—No member shall engage himself as a contractor without first presenting a written request to the local and appear when requested before the joint conference committee for an examination. If he passes the examination he shall file a certificate showing that his workmen's compensation insurance has been paid six months in advance, when he will be granted a permit card to be stamped "contractor." If he desires to work as a journeyman again he shall surrender contractor's card and take out a journeyman's card. He will not be granted permit to contract again for the period of one year.

Electrical workers.—No member of this local will undertake to contract for electrical work, or in any way permit his name to be used in connection therewith, nor take out or own a license to do electrical work within the jurisdiction of this local.

Any member found doing any work on his own time while working for a recognized electrical contractor who is a party to this agreement, shall have an assessment of $25 levied on him by the local. This assessment must be paid to the financial secretary of the local before the secretary shall accept any dues from the party assessed.

Lathers.—Any member wishing to become a contractor must be in good standing for one year, and give 90 days' written notice. If approved he will be given a contractor's certificate in 90 days, provided he has $1,000 in bank. A fee of $25 must accompany application. If resignation is accepted he shall pay the remainder of the fee; if rejected he shall forfeit the amount paid.

Mosaic and terrazzo workers.—Should a member desire to become a contractor he shall make application and receive a withdrawal card. He shall not be reinstated or work as a journeyman for a period of six months.

Operative plasterers.—A member who becomes a contractor must relinquish all claims as a union member. Going back to work at day work he must pay initiation fee in full before becoming an employee again.

No member of this local shall at any time take piece, contract, or time work on his own account without first surrendering his union card and withdrawing from the local. The penalty for violating this article shall be determined by the local.

Painters, decorators, and paperhangers.—Any member wishing to become a contractor must have been a member in good standing in this district for five years, and must apply to painters' district council for a permit. He must then pass an examination before the board of business agents in regard to his qualifications to read plans and estimate work, and show whether he can furnish security for the payment of weekly wages to his employees. Card will be marked "contractor" and he will not be permitted to work for another contractor.

Member becoming a contractor may retain his membership in the union to retain his benefits, but he must not become a member of any contractor's club or association, and he must employ union men.

Plumbers and gas fitters.—Members shall work for none but legitimate licensed master plumbers and gas fitters, and shall do no work for themselves outside their own property and shall endeavor to have all work go through the legitimate channels of business.

No member to do subcontracting or do work on Saturday afternoon, Sundays, or on holidays for any one not a regularly licensed master plumber. Violation of this provision $25 fine, the same to be paid to some charitable institution.

Sheet-metal workers.—Any member of this local who shall become an employer of sheet-metal workers may identify himself with the Sheet Metal Contractors' Association. After he has been in the sheet-metal business for a period of not to exceed nine months he may relinquish his membership in this local. This requirement shall not prevent him from rejoining the local should he decide to discontinue contracting work.

No member of Local No. — while employed by contractor signing this agreement shall be permitted to contract work or do work on his own accord other than on his own individual property, but shall turn such work over to his employer.

Sign painters.—Should any member contract for work while in the employ of signer of this agreement he shall be punished, upon conviction, by a fine of not less than $5 nor more than $50.

Slate, tile, and composition roofers.—Member wishing to become a contractor must take out a withdrawal card and shall not be readmitted for six months. If he contracts without withdrawal card he shall be assessed $50 for the first offense, for the second offense he shall have his union card withdrawn.

Steamfitters.—This local will not allow its members to work for any other than a master steamfitter recognized as such and having a regular shop for this express purpose.

Any steamfitter having an honorable withdrawal from Local No. — who wishes to join the Heating and Piping Contractors' Association may do so without protest, provided he can produce proof that he has established himself legitimately in the heating business and on payment of $100 initiation fee, upon recommendation of the conference board.

Structural and ornamental iron workers.—Any member who bids on work controlled by the organization, or enters into any form of contract without first securing a withdrawal card shall be fined, expelled, or disciplined in any other way that the union may determine.

Cooperative Gasoline Stations in 1929

THE Bureau of Labor Statistics has recently completed a survey covering the various types of cooperative organizations (except the farmers' marketing associations). In the present article are given the data obtained for the cooperative gasoline and oil associations.

It is only during the past few years that this phase of the cooperative movement has been in existence. The oldest of these societies for which the bureau has data was established in 1913 as a store and marketing society, but the vast majority have been formed in the past four years. At the end of 1929 there were 198 such societies of which the bureau had record, and the bureau knows of 15 others formed since the first of the year 1930. The farmers' organizations of the Middle West States have been especially active in the promotion of this form of cooperation; in fact, practically all of the societies in this line of business are in that section of the country.

Of the 198 oil societies in operation at the end of 1929, the bureau has data for 146, or nearly three-fourths. These have a combined membership of 55,313, a share capital of $1,182,214, and reserves of $604,940. Their sales for the year 1929 amounted to $10,782,049, on which they realized a net gain of $1,326,791; this was a profit of 12 per cent on sales, or of 107.1 per cent if figured on the basis of capital invested.

These societies seem to be almost uniformly successful. They are in a very advantageous position as compared with groups operating cooperative stores. Thus, they handle a very small number of commodities, as compared with the very great number of articles found in the cooperative store—each in many varieties and brands, and each with its varying margin of profit. Also, as the manager of one of the wholesale oil associations pointed out recently, little or no previous experience is required to run a gasoline station. Another advantage is the wide margin of profit in this line of business, as compared to the very small margin on most commodities handled by the store societies.

Whatever the cause, the fact remains that the value of these associations to their members is remarkable. In 1929 the members received in patronage rebates and interest on share capital the tidy sum of $746,624—their savings on the year's business. For the four years covered by the bureau's survey (1926 to 1929) these savings aggregated $1,683,465. One society alone has in the eight years of its existence saved its members nearly $200,000 in the two items handled by it—gasoline and motor oils.

The 107 associations for which the bureau has data as to this point operate 198 gasoline stations. In addition to the gasoline business, 2 societies handle coal, and 1 society handles coal and farm machinery.

The cooperative oil associations at the end of 1929 had 565 employees.

The table below shows the total number of associations of this type known to have been in existence at the end of 1929, and the number furnishing returns.

TABLE 1.—TOTAL NUMBER OF COOPERATIVE OIL ASSOCIATIONS AT END OF 1929, AND NUMBER REPORTING

State	Total number	Number reporting	State	Total number	Number reporting
California	1	1	North Dakota	2	2
Colorado	4	2	Oklahoma	1	
Illinois	16	14	South Dakota	5	3
Iowa	18	16	Washington	1	
Kansas	6	5	Wisconsin	18	10
Minnesota	63	50	Wyoming	1	1
Missouri	6	2			
Nebraska	55	39	Total	198	146
New Mexico	1	1			

Age of Associations

COOPERATION in the purchase of gasoline and motor oils can not be said really to have begun until about the year 1924, and 80 per cent of the societies concerning whose year of establishment the bureau has data were started in the four years 1926, 1927, 1928, and 1929.

The average age of the associations reporting is 3 years and 1 month.

The statement below shows the year of establishment of the societies reporting:

	Number		Number
1913	1	1926	28
1915	1	1927	27
1920	1	1928	25
1921	2	1929	22
1922	2	Not reported	19
1924	10		
1925	8	Total	146

Membership

THE 118 societies which reported on the number of members have a combined membership of 55,313, distributed by States as follows:

TABLE 2.—TOTAL AND AVERAGE MEMBERSHIP OF COOPERATIVE OIL ASSOCIATIONS, 1929

State	Number of societies reporting	Membership		State	Number of societies reporting	Membership	
		Total	Average per society			Total	Average per society
Colorado	2	301	151	New Mexico	1	600	600
Illinois	13	11,022	848	North Dakota	2	470	235
Iowa	16	10,019	626	South Dakota	2	1,044	522
Kansas	3	378	126	Wisconsin	10	2,478	248
Minnesota	41	20,688	505				
Missouri	2	406	203	Total	118	55,313	469
Nebraska	26	7,907	304				

It is seen that the associations are largest in Illinois (848 members), but the average membership exceeds 500 in Iowa, Minnesota, New Mexico, and South Dakota.

Although 70 per cent of the societies reporting as to membership had fewer than 500 members, there were 10 societies with 1,000 or more members each, as is shown in the statement below:

	Number of societies		Number of societies
Under 50	1	900 and under 1,000	3
50 and under 100	10	1,000 and under 1,200	3
100 and under 200	22	1,200 and under 1,500	2
200 and under 300	25	1,500 and under 2,000	2
300 and under 400	19	2,000 and under 3,000	1
400 and under 500	5	3,000 and under 4,000	2
500 and under 600	7	Not reported	28
600 and under 700	8		
700 and under 800	3	Total	146
800 and under 900	5		

Funds

THE associations reporting have an aggregate share capital of $1,182,214, which is an average of $9,164 per society and $21 per member. These societies are as yet too young to have had much opportunity to build up reserves, yet the aggregate amount of the 122 societies is $604,940. The details are shown in Table 3.

TABLE 3.—SHARE CAPITAL AND RESERVES OF COOPERATIVE OIL ASSOCIATIONS AT END OF 1929

State	Number of societies reporting	Share capital			Reserve fund
		Total	Average per society	Average per member [1]	
California	1	[2]			$2,400
Colorado	2	$3,925	$1,963	$13	[3] 154
Illinois	14	267,477	19,106	23	[4] 132,356
Iowa	16	136,241	8,515	19	96,630
Kansas	5	12,572	2,514	21	5,437
Minnesota	49	443,975	9,061	19	[5] 224,762
Missouri	2	5,056	2,528	12	
Nebraska	26	190,960	7,345	25	[4] 77,825
New Mexico	1	13,000	13,000	22	
North Dakota	2	13,555	6,778	29	9,791
South Dakota	3	[6] 20,408	6,803	14	8,354
Wisconsin	10	75,045	7,505	30	47,231
Total	131	[7] 1,182,214	9,164	21	[8] 604,940

[1] Based on societies which reported both membership and share capital.
[2] No data.
[3] 1 society.
[4] 13 societies.
[5] 42 societies.
[6] 2 societies; the third is a nonstock association.
[7] 129 societies
[8] 109 societies.

Amount of Business

THE 140 associations which reported the amount of business done in 1929 had aggregate sales that year of $10,782,049, an average of $77,015 per society and $168 per member. Details, by States, are shown in the table which follows:

TABLE 4.—TOTAL AND AVERAGE AMOUNT OF BUSINESS OF COOPERATIVE OIL ASSOCIATIONS, 1929

State	Number of societies reporting	Sales, 1929			
		Total	Average per society	Average per member [1]	Average per employee [2]
Colorado	1	$37,597	$37,597	$437	$18,799
Illinois	14	2,035,050	145,361	178	13,146
Iowa	16	1,344,568	84,036	134	14,683
Kansas	4	240,162	60,041	305	10,485
Minnesota	49	3,587,117	73,206	152	17,348
Missouri	2	26,287	13,144	65	4,381
Nebraska	39	2,377,429	60,960	213	16,536
New Mexico	1	250,000	250,000	417	35,714
North Dakota	2	115,587	57,794	246	19,265
South Dakota	2	214,818	107,409	206	19,529
Wisconsin	9	493,434	54,826	206	17,623
Wyoming	1	60,000	60,000	----	----
Total	140	10,782,049	77,015	168	16,099

[1] Based on societies which reported both sales and membership.
[2] Based on societies which reported both sales and number of employees.

The statement below shows the number of societies having classified amounts of sales in 1929:

	Number of societies		Number of societies
Under $10,000	[1] 1	$200,000 and under $300,000	4
$10,000 and under $25,000	[2] 15	$300,000 and under $400,000	4
$25,000 and under $50,000	[3] 47	Not reported	6
$50,000 and under $100,000	[4] 46		
$100,000 and under $200,000	[2] 23	Total	146

The trend of sales of the societies during the 4-year period is shown in the following table:

TABLE 5.—SALES OF COOPERATIVE OIL ASSOCIATIONS, 1926 TO 1929

State	1926		1927		1928		1929	
	Number of societies reporting	Sales	Number of societies reporting	Sales	Number of societies reporting	Sales	Number of societies reporting	Sales
Colorado	----	----	----	----	----	----	1	$37,597
Illinois	2	$79,808	6	$522,925	11	$1,166,901	14	2,035,050
Iowa	3	278,634	8	501,448	11	879,666	16	1,344,568
Kansas	----	----	2	38,000	3	77,200	4	240,162
Minnesota	10	1,057,499	24	1,662,076	28	2,132,125	49	3,587,117
Missouri	----	----	----	----	----	----	2	26,287
Nebraska	2	93,237	3	102,162	13	905,023	39	2,377,429
New Mexico	----	----	----	----	1	275,000	1	250,000
North Dakota	----	----	2	53,994	2	112,342	2	115,587
South Dakota	1	20,461	1	63,768	2	153,879	2	214,818
Wisconsin	3	195,554	6	264,399	6	347,345	9	493,434
Wyoming	----	----	----	----	----	----	1	60,000
Total	21	1,725,193	52	3,208,772	77	6,049,481	140	10,782,049

[1] This society was in operation less than the full year.
[2] 2 of these societies were in operation less than the full year.
[3] 9 of these societies were in operation less than the full year.
[4] 1 of these societies was in operation less than the full year.

Operating Expenses

OF THE 146 societies which furnished data for the present study, 62 supplied itemized statements of their operating expenses for the year. A number of others also furnished data, but as they had been in operation only part of the year their figures were not used.

The highest expense of operation was that of a society whose overhead amounted to 45.8 per cent of its sales for the year, while the lowest expense was only 3.8 per cent of sales. The average expense rate was 15.2 per cent.

Classified by expense ratio the societies were as follows:

	Number of societies		Number of societies
Under 5 per cent	2	17.5 and under 20 per cent	11
5 and under 7.5 per cent	2	20 and under 25 per cent	5
7.5 and under 10 per cent	4	25 and under 30 per cent	1
10 and under 12 per cent	7	45 and under 50 per cent	1
12 and under 15 per cent	18		
15 and under 17.5 per cent	11	Total	62

The table following shows the per cent that each item of expense formed of the year's sales:

TABLE 6.—OPERATING EXPENSES OF COOPERATIVE OIL ASSOCIATIONS IN 1929

Item	Per cent of sales spent for each item		
	High	Low	Average
Sales expense:			
Wages	33.4	0.4	4.6
Commissions	14.5	.1	6.0
Advertising	.7	(1)	.2
Total	33.7	1.8	10.8
Miscellaneous delivery expense (except wages)	9.4	(1)	.8
Rent	2.7	(1)	.4
Heat, light, water, and power	.8	(1)	.2
Insurance and taxes	13.0	.3	.7
Interest on borrowed money	1.0	(1)	.1
Office supplies	1.5	(1)	.2
Repairs	.7	(1)	.1
Depreciation	2.5	.2	.9
Bad debts	.8	.1	.1
Telephone and telegraph	.6	(1)	.1
Miscellaneous	3.7	(1)	.9
Total expenses	45.8	3.8	15.2

[1] Less than one-tenth of 1 per cent.

Net Trading Profits

IN 1929 the 140 societies which reported their net profits had a gain on the year's business amounting to $1,326,791, an average of $9,477 per society. This was at the rate of 12 per cent on their sales for the year, and figured on the basis of share capital, was at the rate of 107.1 per cent.

For the four years covered by this study the societies reporting saved their members nearly $2,500,000. The data for 1929, together

with comparative data for the three preceding years, are shown in the following table:

TABLE 7.—AMOUNT AND RATE OF NET PROFIT OF COOPERATIVE OIL ASSOCIATIONS, 1926 TO 1929

Year	Net profit			Rate (per cent) of net profit, based on—	
	Number of societies reporting	Amount	Average per society	Share capital [1]	Sales [2]
1926	26	$258,088	$9,926	(3)	11.5
1927	53	375,523	7,085	(3)	10.9
1928	76	476,111	6,265	(3)	8.2
1929	140	1,326,791	9,477	107.1	12.0

[1] Based on share capital of societies which reported a profit.
[2] Based on sales of societies which reported a profit.
[3] No data on share capital for this year.

The data for each of the four years, classified by States, are shown in Table 8:

TABLE 8.—NET GAIN OF COOPERATIVE OIL ASSOCIATIONS, BY STATES, 1926 TO 1929

State	1926		1927		1928		1929	
	Number of societies reporting	Amount	Number of societies reporting	Amount	Number of societies reporting	Amount	Number of societies reporting	Amount
Colorado							2	$13,138
Illinois	2	$5,943	5	$33,313	10	$62,627	14	252,693
Iowa	3	33,815	7	49,377	10	62,537	15	133,391
Kansas			2	5,133	3	7,537	4	35,242
Minnesota	12	139,864	27	197,739	30	191,629	49	472,766
Missouri							2	1,976
Nebraska	4	30,951	4	20,448	13	70,056	38	267,967
New Mexico							1	4,009
North Dakota			2	7,277	2	10,515	2	14,646
South Dakota	1	2,000	1	8,461	2	18,731	3	41,080
Wisconsin	4	45,515	7	53,775	7	52,479	9	82,215
Wyoming							1	7,677
Total	26	258,088	55	375,523	77	476,111	140	1,326,791

Division of Profits

THE societies reporting returned to their members, on the 1929 business, patronage rebates amounting to $674,628 and interest on share capital amounting to $71,996, a total of $746,624, or slightly less than three-quarters of a million dollars. In addition, four societies returned dividends, but failed to report the amount so returned; of these, one paid dividends on purchases at the rate of 5 per cent, one at 6 per cent, one at 8 per cent, and one at 18 per cent.

Patronage rebates and interest for the four years covered aggregated $1,683,474.

The details are shown in the table following:

TABLE 9.—AMOUNT RETURNED BY COOPERATIVE OIL ASSOCIATIONS IN PATRONAGE REBATES AND IN INTEREST ON SHARE CAPITAL, BY STATES, 1926 TO 1929

Item and State	1926		1927		1928		1929	
	Number of societies reporting	Amount	Number of societies reporting	Amount	Number of societies reporting	Amount	Number of societies reporting	Amount
Patronage rebates								
Colorado							1	$2,762
Illinois	2	$5,370	5	$19,269	11	$47,747	14	97,328
Iowa	3	26,797	[1] 6	[1] 34,108	[1] 10	[1] 45,842	[2] 14	[2] 79,653
Kansas			2	4,375	3	5,696	4	19,051
Minnesota	[3] 13	[3] 120,638	[4] 27	[4] 140,412	33	143,409	[5] 40	[5] 299,021
Missouri							2	815
Nebraska	4	17,768	4	14,070	15	52,682	[3] 31	[3] 95,755
North Dakota			2	3,645	2	6,046	2	8,960
South Dakota	1	2,000	1	7,709	1	13,854	1	22,267
Wisconsin	4	37,538	7	40,690	7	39,553	8	49,016
Total	[3] 27	[3] 210,111	[6] 54	[6] 264,278	[1] 82	[1] 354,829	[7] 117	[7] 674,628
Interest								
Colorado							1	158
Illinois	2	882	6	6,475	11	12,251	14	15,899
Iowa	3	2,294	8	4,794	11	6,698	15	8,390
Kansas			2	170	3	261	4	1,106
Minnesota	[3] 12	[3] 8,951	[3] 26	[3] 20,108	31	23,716	[3] 41	[3] 30,876
Missouri							2	99
Nebraska	5	1,392	5	952	16	7,947	[3] 32	[3] 9,310
North Dakota			2	375	2	880	2	1,012
South Dakota			1	752	1	828	1	954
Wisconsin	4	1,544	7	3,234	7	3,119	10	4,192
Total	[3] 26	[3] 15,063	[3] 57	[3] 36,860	82	55,700	[3] 122	[3] 71,996
Grand total		225,174		301,138		410,529		746,624

[1] Not including 1 society which paid 7 per cent but did not state amount.
[2] Not including 1 society which paid 5 per cent and 1 which paid 18 per cent, but did not state amount.
[3] Not including 1 society which paid 8 per cent but did not state amount.
[4] Not including 1 society which paid 2 per cent but did not state amount.
[5] Not including 1 society which paid 6 per cent but did not state amount.
[6] Not including 1 society which paid 7 per cent and 1 which paid 2 per cent, but did not state amount.
[7] Not including 1 society which paid 5 per cent, 1 which paid 6 per cent, 1 which paid 8 per cent, and 1 which paid 18 per cent, but did not state amount.
[8] Not including 2 societies which paid 8 per cent but did not state amount.

The record of several of these societies is worthy of mention. The table below shows for each of five societies the amount returned to members in interest on share capital and dividends on patronage since the association has been in business.

TABLE 10.—INTEREST AND DIVIDENDS RETURNED TO MEMBERS BY INDIVIDUAL COOPERATIVE OIL ASSOCIATIONS, BY YEARS

Year	Cooperative Gas & Oil Co., Sioux Center, Iowa		Freeborn County Cooperative Oil Co., Albert Lea, Minn.		Lac Qui Parle Cooperative Oil Co., Dawson, Minn.[1]	Lyon County Cooperative Oil Co., Marshall, Minn.		Central Cooperative Oil Association, Owatonna, Minn.	
	Dividends	Interest	Dividends	Interest		Dividends	Interest	Dividends	Interest
1922								$3,277	$366
1923								6,462	981
1924	$1,045	(2)			$1,860	[3] $2,334	(4)	5,125	1,042
1925	6,704	(2)	$14,779	(2)	5,128	9,401	1,011	22,371	1,094
1926	11,633	985	28,924	1,522	8,000	16,590	1,242	37,279	1,361
1927	9,007	1,058	20,600	1,879	8,800	16,203	1,406	30,860	1,961
1928	9,811	1,091	15,426	2,200	7,034	13,713	1,374	30,226	2,275
1929	12,320	1,134	40,101	2,233	16,079	32,140	1,299	51,268	2,508
Total	50,520	4,268	119,830	7,834	46,901	90,381	6,332	186,868	11,588

[1] Dividends only.
[2] No data.
[3] Includes interest also.
[4] Included with dividends.

Cooperative Practice

IT IS the universal practice of these associations to return patronage dividends when the condition of the business warrants doing so.

The democratic principle of one man, one vote is adhered to almost without exception in all the States except Illinois. In the last-named State, of 14 associations reporting, all but two vote by shares.

Proxy voting is more general than vote by shares—72 associations prohibit it, 25 allow it, 1 has no rule in the matter, and the remainder did not report on this point.

Credit is allowed by 98 societies (in 1 "very little," in 7 in limited amounts only, in 1 for short periods only, in 1 for 60 days, and in 2 for 30 days), 18 do not extend credit, and the remainder failed to reply.

Development since 1925

THE following table shows the development of these associations in 1929, as compared with 1925, when the bureau's last previous study was made. It is seen that while the total amounts have increased, the averages have (with the exception of reserves) decreased. This may be due to the large number of new societies included in the figures.

TABLE 11.—DEVELOPMENT OF COOPERATIVE OIL ASSOCIATIONS IN 1929 AS COMPARED WITH 1925

Item	1925	1929	Item	1925	1929
Number of societies reporting	10	146	Sales:		
Membership:			Amount	$742,473	$10,782,049
Total	3,615	55,313	Average per society	$82,497	$77,015
Average per society	516	469	Average per member	$195	$168
Share capital:			Net gain:		
Total	$79,225	$1,182,214	Amount	$98,892	$1,326,791
Average per society	$11,318	$9,164	Average per society	$10,988	$9,477
Average per member	$23	$21	Rate (per cent of sales)	12.9	12.0
Reserves:			Patronage dividends:		
Total	$21,316	$604,940	Amount returned	$44,826	$674,628
Average per society	$3,553	$4,959	Average per society	$8,965	$5,769

EMPLOYMENT CONDITIONS AND RELIEF

Experience of a Group of Employers with the Lay-Off Problem

THE results of a recent study of "Lay-off and its Prevention" have just been published by the National Industrial Conference Board (Inc.). Data were secured from 248 companies employing about three-quarters of a million wage earners. Approximately 75 per cent of the companies reported that they were obliged to lay off workers in 1927. Only reports on lay-offs resulting from lack of work were asked for, but many concerns were not able to furnish the information in the required form. Comparable figures, however, on this subject were obtained from 88 companies reporting a maximum employment of 200,269 persons and a minimum of 181,925 in that year, 33,894 persons [1] being laid off because of lack of work.

The reasons reported by 136 companies for the laying off of their employees during the slight depression in 1927 are as follows:

	Per cent of companies
Seasonal fluctuations	55.9
Business depression	37.5
Increased efficiency	28.7
Introduction of new machinery	15.4
Change in methods	11.0
Introduction of wage incentives	2.2
Completion of building program	4.4
Changes in style	2.2
Weather conditions	1.5
Consolidation	1.5
Inability to obtain raw materials	.7
Lack of coordination between engineering and manufacturing departments	.7
New plant in South	.7
In interest of economy	.7

Employment Stabilization

PLANTS which have centralized employment control have found it successful in averting lay-off problems. Under another progressive policy some companies discontinue taking on new employees well in advance of an anticipated recession in activity. Workers are constantly leaving, and when they are not replaced the personnel automatically reduces itself.

The adjustment of production to markets is acknowledged as one of the most difficult of management problems. The careful budgeting, however, of future production requirements has been found valuable in eliminating operating irregularities and stabilizing employment.

If those laid off can not be absorbed in other jobs or other departments because of skill limitations the most constructive remedy

[1] Data on number of employees not available for 4 companies.

tried by a number of plants is the development of a wider versatility throughout the labor force. Of the 157 concerns included in the survey which made a practice of transferring their workers when possible, 35.7 per cent stated that they tried to teach a considerable number of their employees various operations. Transfers are not practicable, of course, between occupations which require several months or years of training.

Eight companies followed the practice of laying off common laborers or semiskilled employees and giving their jobs to skilled employees in order to retain the services of these more valuable members of the staff.

A few companies have established a labor supply department. Instead of taking on extra men for a busy department or to substitute for regular workers who are absent, a requisition is made on the labor supply department. Recognizing the advantage of having especially trained workers who can be utilized on a variety of operations, some companies have organized "flying squadrons." These emergency crews, selected from the most adaptable employees, are given an intensive training in the various operations. They are used as substitutes for absentees and to help departments experiencing an unlooked-for rush of work. Such groups promote employment stabilization, as departments are not tempted to carry superfluous workers when the flying squadrons can be drawn on for aid.

Some companies during periods of high production temporarily promote their best workers to foremen. Through this scheme additional labor is more easily assimilated and directed. Moreover, the management has the opportunity to try out these selected employees before giving them permanent supervisory jobs.

Reduction of working schedule.—Over 75 per cent of the companies which reported concerning their policy when it becomes necessary to reduce the working schedule regarded it advisable as a general practice to divide the available work as equally as possible among the working force before taking into consideration a drastic cut in the personnel, especially in localities where there were no other industries to absorb those laid off. Some establishments have found, however, that after protracted part-time operation their best workers have left for other employment in which they could earn more.

The opinions of industrialists vary considerably in regard to how far the work week can be reduced before lay-offs are made. A majority of the companies reported that before the personnel is reduced the work week is ordinarily shortened to four days or hours are reduced from 20 to 30 per cent. In a few cases the companies declared that the working hours could not be decreased more than half a day without an adverse reaction. The experience of some plants, however, was satisfactory even with a 3-day week. In curtailing the work week, the general practice of the reporting companies is first to eliminate Saturday morning. If further reduction is necessary, many establishments prefer to cut out another full day rather than to work fewer hours for five days.

In the seasonal industries some establishments allow their workers unrestricted overtime during the heighth of production instead of taking on additional employees, thus enabling the regular force to offset the low earnings of the slump period.

Some companies in slack times adhere to scheduled hours, but rotate the workers. Of the 151 companies stating that they reduced hours before making lay offs, 81.5 per cent preferred shortening the plant hours and 11.2 per cent preferred rotating workers, while 7.3 had recourse to a combination of the two methods.

Of 228 companies reporting on curtailment methods, 7 made use of shutdown vacations, and five asked the workers to take vacations without pay, while one company granted vacations with pay.

Experiments in eliminating seasonal variation.—As stated above, 56 per cent of 136 companies which reported causes of lay-offs in 1927 attributed such reductions in the working force to seasonal variations, while only 37 per cent gave general business conditions as the reason. In recent years experiments have been made by a number of different industries in eliminating or diminishing seasonal fluctuations in production. Some companies have been able to guarantee from 40 to 50 weeks' employment per annum to all workers who have met certain service requirements. Most establishments have not attained so complete a success but have nevertheless made real progress. The schemes of 69 companies covered in the study under review which were definitely attempting to smooth out seasonal fluctuations in production may be included under the following three heads:

	Companies
Manufacturing for stock in dull period	41
Diversification of product	14
Increasing demand during off season	14

Technique of Lay-Off

DESPITE efforts to smooth out the production curve, there will probably be times "when good judgment requires that the working force be reduced by laying off a certain number of employees." Laying off workers, however, is beginning to be considered as a final resort in retrenchment.

Qualifications considered in making lay-offs.—Of 152 companies, 65 reported that in dropping workers greater emphasis was placed upon workmanship than upon any other factor. Length of service was the primary consideration in 67 companies, while 20 concerns stated that both of these factors were given equal weight. A few large concerns have definite rules concerning the point at which length of service shall begin to outweigh efficiency in making decisions as to the retention of workers, for example, after 5, 10, or 12 years' service.

Forty-seven, or about two-thirds, of the plants reporting marital status as a factor to be regarded in connection with lay-off give such status weight when efficiency and length of service are about equal. Twenty-six establishments, however, take the view that a worker's family responsibility deserves particular consideration. In general, the number of dependents is not a deciding factor in the selection of workers to be laid off except in case the efficiency and service of two or more workers are about equal or when there are special circumstances which would make the loss of a job a tragedy.

Between 13 and 23 establishments especially emphasize in their estimates of employees such characteristics as good attendance, loyalty, and generally excellent conduct. Special preference is given to skilled workers by eight companies.

Advance notice of lay-off.—About 30 per cent of the 163 companies reporting on length of lay-off notice do not give such notice in advance, while the remaining establishments do so. The length of notice varies from one-half day to one month. Twenty-two establishments state that they give "as much notice as possible."

Dismissal wage.—When it is not possible to give advance notice of lay-off, 12 concerns pay the laid-off employee the wage he would have received had he continued to work during the period ordinarily covered by such notice, 4 undertakings give 3 days' average pay, and 7 companies grant one week's average pay. One establishment allows the employee to choose either two weeks' advance notice or a sum equivalent to two weeks' wages.[2]

A textile company, as a result of overexpansion, was forced to dismiss about one-fifth of its personnel. Whereupon the board of directors voted to draw from the employment reserve fund sufficient money to pay two weeks' wages to each employee designated for lay-off. As this reduction of force occurred near vacation time an extra week's pay was granted instead of a vacation. A profit-sharing distribution for a half year being due about this period, an amount equivalent to between 2 and 3 weeks' wages was added to the other allowances. Each laid-off employee, therefore, received a grant amounting to 5 to 6 weeks' wages. Several other examples of dismissal wages are cited, but most of them have already been reported upon in the Labor Review for April, 1930 (pp. 1–5).

Securing jobs for laid-off workers.—While 40 per cent of the 119 concerns reporting on the question of finding positions for their laid-off workers stated that they made no attempt to do so, 60 per cent did try to aid the superfluous members of their personnel to secure other jobs, and in almost half of these latter establishments such efforts take definite, organized form.

Reemployment of laid-off workers.—Of the 81 companies which reported with reference to the return of employees after lay-off, more than 80 per cent stated that a large proportion of their laid-off workers came back upon call. It is pointed out, however, that the business decline in 1927 was not prolonged and that if the depression had been protracted, probably the percentage of employees who returned would have been substantially lower. A number of reporting establishments found that in suspensions of from 2 to 4 weeks, the percentage of returned workers was very great, while after depressions lasting for months, the proportion of returns was very small.

Effect of lay-off in service record.—A majority of the companies which expressed themselves concerning the worker's seniority rights held that such rights should not be affected by a discontinuance in service which was beyond his control, and consequently considered the service of an employee as uninterrupted if certain conditions were complied with. Nearly 28 per cent of 112 establishments counted the time actually worked, making no allowance for the lay-off period, while 14.3 per cent treated the returned employee as a new member of the personnel.

Unemployment insurance.—Brief reference is made to 10 concerns, employing 13,000 workers, which are operating unemployment insurance schemes on their own initiative. These plans vary as to

[2] Dismissal wages for veteran workers discussed in another section.

eligibility for benefits, amount of benefits, participation period and funding. Four unemployment funds established by employers and trade-unions are also mentioned in the report, such funds having a coverage of approximately 65,000 employees.[3]

The veteran employee problem.—Of the 117 companies replying to the inquiry as to whether in making lay-offs special consideration is given to workers with comparatively long service records, 46.2 per cent reported that older employees are not usually laid off, while less than 10 per cent of the concerns stated that in this matter they did not differentiate between old and new workers. The remaining 52 establishments reported the following policies with reference to the treatment of older employees, some establishments having more than one method of procedure:

	Per cent of 52 companies
Recall to work first	38. 5
Try to secure positions for them in other companies	19. 2
Give dismissal wage	17. 3
Give pension under certain conditions	17. 3
Give long advance notice	13. 5
Give special consideration	9. 6
Continue group insurance	3. 8
Participate in unemployment fund	3. 8

Report of New York Advisory Committee on Employment Problems

THE Advisory Committee on Employment Problems appointed by the New York Industrial Commissioner in October, 1929, to investigate the present operation and possible future development of the State employment service has recently submitted its report.[4]

The report notes that the Bureau of Employment has, during its 15 years of existence, been prevented "from making any significant contribution to the regularization of employment and to the organization of the labor market" because of its small appropriations and low salaries. "The bureau has not been able to command the leadership and abilities required by the work. Frequently its personnel has been inadequate and indifferent and its quarters unsuitable and unattractive." In spite of this, however, for the year 1929 the bureau made 114,549 placements, over two-thirds of which were in unskilled and casual jobs, at a total cost of $188,390.

In the 10 centers in which the local offices of the Bureau of Employment operate there are 1,149 commercial employment bureaus and over 50 noncommercial agencies.

Recommendations of the Committee

THE committee's recommendations fall into two classes: Those for immediate adoption and those suggested for a 5-year plan of action.

Recommendations for immediate action.—The committee urges (1) that the bureau be placed under one capable, trained executive with

[3] For a description of plans of this character see United States Bureau of Labor Statistics, Bul. No. 439 (pp. 596–604), Bul. No. 491 (pp. 699–703), and Monthly Labor Review, issues of September, 1929 (pp. 182–183) and May, 1930 (pp. 33–34).

[4] Press release, June 20, 1930.

authority under and responsibility direct to the State industrial commissioner, (2) that systematic clearance among the employment offices be established, (3) that a manual of practice be prepared, and (4) that definite provision be made for organized training of the personnel of the bureau, particularly new employees.

Pointing out that because of the division of responsibility the present relations of the United States Employment Service and the Bureau of Employment are unsatisfactory, the committee also recommends that an agreement be made with the United States Employment Service whereby salaried representatives assigned by it to the bureau be selected in cooperation with the latter and be responsible preferably to its chief for inspection, study of standards, securing of statistics, etc., instead of being assigned, as they are now, to individual offices.

In order to bring about immediate improvements in the bureau which will provide for better trained personnel, better quarters, and better records, the committee urges that a lump sum of $50,000 be made available.

Five-year program.—In regard to the 5-year program the report states:

> It is not to be expected that the State can do an omnibus job to the exclusion of the other channels of placement. The local offices of the bureau of employment must, if they are to make greater contribution to the organization of the labor market, become scientific and authoritative centers of information on employment and industrial conditions in the districts which they serve. In addition, they must act as the medium for bringing about coordination of existing effective placement agencies, recognizing those agencies that are doing honest effective work and taking action to get facts upon which to secure correction of existing abuses in the operation of commercial agencies. Under this plan of operation, the State offices would assist in assembling the plans for public works in their districts in order to determine to what extent such public works can be used to bring about possible relief during periods of unemployment. They would study the problems of stabilization and regularization of employment. They would analyze the causes of unemployment and suggest to what extent it might be minimized. They would occupy placement fields wherever they are not effectively covered.

To attain these ends, the committee suggests certain changes in the organization of the bureau and the salaries to be paid, and urges that suitable and attractive offices be provided. Its other recommendations include the following:

1. That the principle of intensive rather than extensive development of the State bureau of employment be adopted.

2. That it be the function of the bureau (*a*) to determine the scope of the placement work for each of its local offices in relation to the adequacy of existing employment facilities, both commercial and noncommercial; (*b*) to assume leadership in improving and coordinating the work of public and noncommercial employment agencies, including those maintained by employers and labor unions, and to cooperate with acceptable commercial agencies; and (*c*) to serve in each center where there is a local office as the authoritative source of information on employment and industrial conditions as well as public-work projects so as to assist in stabilizing employment.

3. That the cooperation of local governmental authorities and institutions be enlisted in the support of the local offices.

4. That systematic effort be made to secure the cooperation of employers and the community at large; and that to this end (*a*) a State committee as well as local committees representing the different industries in each center where an office is maintained be asked to cooperate with the bureau; (*b*) a program be developed to inform the public of the purpose, policies, and performance of the bureau.

5. That the regulation of commercial agencies be under the control of the State rather than that of local authorities, but that this function be so allocated in the State government as to insure its impartial performance and its independence of the bureau of employment.

6. That pending action on legislation for the development of the United States Employment Service, President Hoover be requested to initiate a reorganization of this service with a view to rendering more adequate assistance to the State service on the principle of the Smith-Hughes Act.

7. That, for the scientific study of the problems involved in the operation of a public employment service, one or more laboratory or demonstration centers be established and that if necessary funds from private sources be accepted for this purpose; and furthermore, that until a plan for this demonstration is submitted no change be made in the scope of the work of any local office.

Unemployment in Porto Rico, 1929

IN PORTO RICO, in 1929, there were 170,519 persons unemployed, according to a memorandum prepared by the chief of the bureau of labor of the island which was included in the first report of the legislative committee to investigate the industrial and agricultural uneasiness and restlessness causing unemployment in Porto Rico, published in February, 1930. This number of the idle does not include the physically disabled, married women doing domestic work in their homes, or children under 18 years of age. The following data from inspection reports and figures compiled by other island authorities are also presented in the above-mentioned memorandum as approximately showing the actual labor situation in Porto Rico in 1929.

Population of available workers:	Number
In sugar industry	75,000
In coffee, tobacco, and fruit industries	51,421
Permanently employed in other industries	55,000
Office employees at fixed salaries	10,000
Professionals and their employees	8,000
In public service enterprises	6,000
In mercantile industry	30,000
Chauffeurs licensed by department of interior	15,000
In domestic service in private homes, hotels, and restaurants	40,000
Total	460,940
Employed	290,421
Unemployed	170,519

Taking the preceding figures as a basis, 37 per cent of the available workers of the island were unemployed in the year under review.

Unemployment in European Countries During the Spring and Summer of 1929 and 1930

UNEMPLOYMENT in the European countries continued to be severe in the spring and summer of this year, especially in the industrially developed countries, such as Germany and Great Britain.

According to the statistical data published on unemployment in various countries,[1] the situation in the spring and summer of 1930 as compared with that in the same period in 1929 was as follows:

Unemployment is about three and one-half times greater in Finland and Rumania; has almost trebled in Belgium; is more than two and one-half times greater in France; and has more than doubled in Germany, the Netherlands, and Poland. It has increased by about 65 per cent in Italy, Great Britain, and Switzerland, by nearly 60 per cent in Czechoslovakia, by about 50 per cent in Hungary, and by about 40 per cent in Austria. There was a slight increase in the Irish Free State and Sweden; practically no change in Estonia and Latvia; but some decrease was shown in Denmark, Norway, and Yugoslavia, being about 9, 4, and 18 per cent, respectively.

NUMBER AND PER CENT UNEMPLOYED IN EUROPEAN COUNTRIES IN THE SPRING AND SUMMER OF 1929 AND 1930

Country and group of unemployed	Month	Number of unemployed		Per cent of unemployed	
		1929	1930	1929	1930
Austria: Persons receiving benefit	July	107,190	152,340	.....	.....
Belgium:					
Members of unemployment insurance societies—					
Wholly unemployed	April	2,507	13,421	0.4	2.2
Partially unemployed	do	12,361	30,070	1.9	4.9
Czechoslovakia: Members of trade-union unemployment insurance funds	do	26,835	42,664	2.4	3.7
Denmark: Trade-unionists	June	27,398	24,807	10.0	8.8
Estonia: Persons registered	May	2,169	2,065	.....	.....
Finland: Persons registered	do	1,280	4,666	.....	.....
France: Persons receiving benefit	June	394	1,019	.....	.....
Germany: Persons registered	July	1,253,000	2,715,000	.....	.....
Great Britain and Northern Ireland: Persons registered	June	1,176,064	1,946,629	.....	.....
Hungary: Trade-unionists	May	14,053	20,732	.....	.....
Irish Free State: Persons insured	do	24,256	*26,027	8.6	*9.2
Italy:					
Persons registered—					
Wholly unemployed	do	227,682	367,183	.....	.....
Partially unemployed	do	8,713	22,825	.....	.....
Latvia: Persons registered	do	1,433	1,421	.....	.....
Netherlands: Members of unemployment insurance societies	do	10,820	23,914	3.0	6.3
Norway: Persons registered	June	14,547	13,939	.....	.....
Poland: Persons registered	do	105,065	218,438	.....	.....
Rumania: Persons registered	May	6,819	25,096	.....	.....
Sweden: Trade-unionists	April	35,989	38,347	12.3	11.1
Switzerland: Members of unemployment funds	March	.....	.....	1.6	2.6
Yugoslavia: Persons registered	May	10,583	8,704	.....	.....

* April.

[1] League of Nations: Monthly Bulletin of Statistics No. 6, June, 1930, pp. 258, 259; Great Britain: Ministry of Labor Gazette, July, 1930, p. 248; Germany: Reichs-Arbeitsmarkt-Anzeiger, July, 1930, p. 2; and Report from G. B. Stockton, consulate at Vienna, dated July 22, 1930.

Unemployment, and Employment Exchanges in England

THE report of the English Ministry of Labor for the year 1929, recently issued, is devoted largely to the general subject of unemployment and to measures taken to relieve it. During 1929 the unemployment situation showed improvement, due mainly to a change in the coal-mining industry, in which the average number of unemployed persons sank from the 252,364 of 1928 to 177,248. At the end of December, 1929, the percentage of unemployment among coal miners varied, according to locality, from 10.4 per cent in Northumberland to 22 per cent in Wales, the figure for Great Britain as a whole being 14.6 per cent. The most unsatisfactory feature of the year was the continued slackness in the textile industries, and particularly in cotton, in which the percentage of unemployment was 14.8 per cent in August and 14.4 per cent in December.

Stress is laid on the fact that there has been a steady increase since 1923 in the number of persons insured against unemployment, showing a continuous growth of the working population. Taking the number of insured persons in 1923 as 100, the index figure for July, 1929, was 108.1. The variations of this index are shown for different parts of the country in the following table:

NUMBER OF INSURED PERSONS, AND INDEX NUMBERS THEREOF, BY GEOGRAPHICAL LOCATION

Division	Estimated number of insured persons, aged 16 to 64		Index number of insured persons (1923=100)	
	July, 1928	July, 1929	July, 1928	July, 1929
London	2,147,000	2,214,000	110.2	113.6
Southeastern	868,000	894,000	118.4	122.0
Southwestern	816,000	840,000	109.8	113.0
Midlands	1,750,000	1,793,000	107.0	109.7
Northeastern	1,969,000	1,986,000	103.5	104.4
Northwestern	2,094,000	2,120,000	103.9	105.2
Scotland	1,264,000	1,270,000	101.1	101.6
Wales	592,000	583,000	99.1	97.6
Great Britain	11,500,000	11,700,000	106.2	108.1

It is evident from these figures that the growth of the insured population has been most rapid in the south and east of England, that it has been much less marked in the north and in Scotland, and that in Wales there has been an actual decrease. This accords with the tendency which has been noticeable for some time to locate new industries in the southern counties, and these regions of expanding industries are naturally less affected by unemployment than those in which the depressed industries, such as mining, shipbuilding, and textiles, are the main occupations. The average percentages of unemployment for 1929 ranged from 5.6 per cent in London and the southeastern counties to 13.7 per cent in the northeastern, 12.1 per cent in Scotland, and 19.3 per cent in Wales.

Work of Employment Exchanges

FIGURES showing for each of the last three years the number of vacancies of which the exchanges were notified, and the number of placements they made are given as follows:

NUMBER OF VACANCIES REPORTED AND OF PLACEMENTS, BY YEAR

Year	Vacancies reported	Positions filled
1927	1,436,052	1,252,707
1928	1,510,423	1,327,218
1929	1,779,434	1,554,433

The number of positions filled in 1929 was the highest for any year the nearest approach to it having been made in 1917, when, under war conditions, the use of the exchanges was compulsory in many instances. The increase over 1928 was 227,215, which, the Ministry feels, represents a creditable advance in the work of the exchanges. The advance is attributed to several causes. The officers of the exchanges have worked for some years to improve the placement machinery, devising methods to help both the employers and the employees, and employers are manifesting a greater appreciation of their services than formerly.

Many employers show their confidence by undertaking to engage all their labor through the employment exchanges and they post notices at their gates to this effect. To avoid useless application and disappointment on the part of unemployed men, such employers were asked to agree to the inclusion of their names in a list exhibited at the local exchange, saying that all their labor is engaged through the exchange, and by the end of the year some 1,800 employers, including a number of large industrial concerns, had agreed to their names being posted in this way.

These placements involved the use of various special schemes. Seasonal workers were supplied for holiday resorts, a number of these being brought from the depressed mining areas of Scotland and Wales. In 46,588 cases, fares were advanced to enable workers to travel to places where employment had been found for them, these loans amounting to £40,479. Industrial transference schemes were pushed vigorously, 32,000 persons being transferred during the year from the depressed mining areas.

Training and Industrial Transference

THE possibilities of transference, it is pointed out, are limited by two factors—the mobility and the employability of the unemployed surplus in the depressed regions. A very considerable proportion of this surplus is made up of married men with large families. The Government had agreed to make grants to such persons to assist them in meeting the cost of removal, and by this means some 2,850 families were helped to move during the year, but housing presented an apparently insuperable obstacle. In the districts where industry is expanding most rapidly, and where there is therefore the greatest demand for labor, it is so difficult to obtain housing accommodation for a man with a large family that only a small proportion of the married

men available can be transferred. On this account it has been necessary to confine transference, apart from juveniles, largely to single men or men without dependents. By the early part of 1929 a large number of these had been transferred, others had left on their own initiative, and it soon became clear that the surplus of single men available for transfer was both smaller and of different quality from that at first contemplated. Many of the possible transferees had been unemployed for so long that they had lost both physical and moral stamina, and, to fit them for the kind of work which might be obtained for them, transfer instructional centers were opened. Five of these, providing 1,200 places in all, were established by the end of the year, and training was being given in forestry work, tree felling, planting, roadmaking, excavating, and leveling. Instruction was given in such forms of indoor work as rough carpentry, boot and shoe repairing, and elementary metal work.

When the men first entered the centers they had not done any steady work for some time and they were often undernourished. They were therefore started gradually, the nature and amount of work each man was required to do being governed by his physical strength and general condition. Good food and steady work rapidly produced marked progress in the normal case and, as the man's condition improved, he was given more and harder work to do, being moved from one carefully graded gang to another, until the last weeks of his course were spent under conditions which approximated as nearly as possible to those of ordinary industrial employment.

Each course lasted from 8 to 12 weeks. During the year 3,518 men were admitted, 1,608 were placed or found work for themselves, 1,029 were dismissed or gave up their training, 117 were transferred to centers where they could be trained in a specific trade, and only 29 completed the 12 weeks' course without obtaining employment.

Training for Overseas Employment

THIS work was pressed with special vigor during 1929, owing partly to an intimation from the Canadian Government that openings could be provided during the season for 6,000 men. As it was impossible to train satisfactorily such a number in time for the farming season, the authorities, after consulation with the Canadian Government, provided a number of four weeks' courses, with the idea of testing rather than training the men. At the same time, long courses were offered which gave really valuable training for men expecting to take up farm work. The trainees showed a decided preference for the latter, 2,320 going through the long course and 1,522 through the short course. As the spring advanced it became clear that the Canadian authorities had overestimated the number of men Canada could absorb, and the testing centers were given up in favor of the genuine training. A considerable number of those applying were considered unsuitable for the overseas work.

The total number of persons who applied in connection with the Canadian demand was 12,879. Of that number, 8,989 were submitted for selection to the Canadian Government's civil and medical examiners, who accepted 5,625 and rejected 3,364. In the course of training there was a further process of elimination, and of the total of 4,370 who entered upon training only 3,842 completed training. Finally, of the 3,842 who completed training, 3,428 proceeded oversea.

In addition to these, 680 men who entered training during 1929 migrated to Australia, making a total of 4,108 trainees sent out within

the year. From the opening of these centers in 1925 to the close of 1929 a total of 7,262 men had been trained and sent out, 4,893 to Canada and 2,369 to Australia.

Increase of Unemployment in Japan

IN April, 1930, there were 372,127 unemployed in Japan among the 7,081,898 covered by the inquiry, according to statistics of the Home Office of that country published in the Trans-Pacific, June 26, 1930. This was an increase of 20,538 in the number of the idle as compared with the figures for the preceding month. The percentages of unemployment for March and April, 1930, were respectively 5.01 and 5.25. In certain localities unemployment was particularly severe, for example, 29.3 per cent of the laborers hired by the day in Tokyo were idle in April, 1930, while the percentage of unemployment for other laborers in that city was 7.9 and for salaried workers, 10.3.

The social work bureau of the Home Office has formulated a plan which calls for the setting up of agricultural training schools in important sections of Japan. Under this scheme unemployed laborers may attend these schools at the expense of the Government and afterward be sent to certain sections of the Empire where land and agricultural implements will be furnished them for purposes of agricultural production. This program, it is stated, will be submitted for approval at the next session of the Diet.

It is also reported that the General Motors Co. of Japan has decided to resort to a 5-day week instead of discharging 200 workers as had been originally planned.

THE OLDER WORKER IN INDUSTRY

Finding Work for the Middle-Aged

THE Employment Aid of San Francisco is a philanthropic, privately supported placement bureau, charging no fee to those for whom employment is found. It was established in 1929 to help in handling the problem of unemployment among the middle-aged. In a report on the first eight months of its work, issued in February, 1930, the management describes its three purposes.

Primarily, it provides a placing agency where the needs of unemployed older men and women may receive individual and sympathetic attention. So many of the larger industries are refusing to employ workers over 40 or 50 that commercial agencies naturally give them only a minimum of attention. Often, however, the older worker, although perhaps unfit for the work he did in earlier days, is still perfectly capable of becoming a useful employee at some other job, at which he may maintain his independence indefinitely. What is needed is a recognition of the facts, followed in some cases by training for a new job, and aid in securing work fitted to his changed capacity. The effort to continue to make good at a job to which a man is no longer adequate has unfortunate effects, both physical and mental, which may be prevented by facing the situation and entering some other type of work, perhaps not in itself so attractive or so well paid, but better suited to the worker's age and ability.

The second purpose of the Employment Aid is to keep people at work in their own interests and for the sake both of the community and of industry, and the third is to acquire a fund of information which may eventually be useful in dealing with the general problem of unemployment, with special reference to middle-aged persons.

Work of the Agency

DURING the period (approximately eight months) covered by the report, 577 men and 531 women, 1,108 in all, applied for positions and 242 were placed, of whom 74 were men and 168 were women. As the knowledge of the agency spread, its work increased, and during the last three months covered applications for work averaged 225 a month and the positions found averaged 42. The following list gives some idea of the kind of positions found:

For women	*For women*—Continued
Millinery apprentice.	Diet-kitchen worker, hospital.
Cafeteria worker.	Ward maid, hospital.
Clerk, branch office, cleaning works.	P. B. X. operator.
Cannery worker.	Typist, branch office of telegraph company.
Janitress, building.	Stenographer, small office.
Janitress, retail store.	Cashier.
Seamstress, private.	Saleswoman.
Linen-room worker, hospital.	

For women—Continued

Chambermaid, hotel.
Laundry worker.
Caterer.
Bookkeeper.
Manager, sanitarium.
Manager, boarding house.
Cottage matron, children's institution.
Matron, boys and girls' club.
Supervisor of public dance hall.
Practical nurse.
Driver of auto to carry children to and from clinic.
Light factory worker:
Toy factory.
Bag factory.
Electrical products factory.
Labeling.
Seed company.
Cook.
General housekeeper.
Housekeeper for employed mother or widower.
Children's nurse.

For men

Accountant.
Shipping clerk.
Stock clerk.
Cannery worker.
Bookkeeper.
Caretaker.
Janitor.
Elevator operator.
Hospital porter.
Hospital engineer.
Construction engineer.
Watchman.
Ranch worker.
Attendant, club.
Messenger.

Some of the applicants were skilled workers no longer useful because of changes in methods or substitution of machinery, and in other cases their speed and certainty had been lessened by age. Some of them were small employers driven out of business by increasing competition, and unused to working under anyone else. In some cases it was necessary to train the applicant for a new kind of work, and in all cases careful study was required to find the job which suited his capacities and to secure his adjustment to the changed conditions. On the whole, it was easier to find places for the women than for the men, though this did not apply to all kinds of work. It was very difficult to place women between 35 and 45 who wished positions as stenographers, typists, filing clerks, or clerical workers, no matter what might be their qualifications, since employers much preferred young girls for such positions.

But the fact that women can turn to housework affords a very important outlet to those over 45. We have had a number of women, formerly either in retail selling positions or in clerical work, unable to find such customary employment, coming to us to ask for positions in a home. Older women are well adapted as practical nurses, and as mothers' helpers. It is our policy to induce the untrained older women to go into some form of domestic work rather than to seek a clerical position, for here she has at least some skill. More than one-half our placements of women have been in this category.

Women are also able to take on light factory work, as this is not often affected by age. As long as a woman's fingers are nimble, the color of her hair makes little difference. Then, too, one may often sit when doing some factory job, and under such circumstances older women may well compete with younger ones. Incidentally, they can offer a real advantage in causing less labor turnover than youngsters.

Extent and Seriousness of the Problem

THE experience of the bureau with employers showed beyond any question that discrimination against older workers is real, even though the employer himself is sometimes unaware that it exists. The executives were almost always interested in the work of the bureau and disposed to be sympathetic, but many hired no employees over 40 or 45; some even said that for certain positions the age limit was set at 35. When a company has a pension plan or group insurance, these age limits are prescribed by formal rules, but other employers who have no such plans have also very definite rulings as to

age. None of the placements made were with large employers, but were in smaller offices and factories, some retail stores, in homes, in institutions, and in suburban places, or were for the doing of odd jobs. Some of the large employers at first proposed to help, but found it impracticable to do so.

The executive of one large insurance company told us he thought a department might be set aside for older women workers; but after consulting with his employment manager and various department heads, he decided this could not be done. The president of a department store said that his company made no discrimination against older women, really welcomed them; but when his employment manager was called in, she stated that younger women were always given preference, as this was for the best interest of the company. Thus, in spite of his wish to help give employment to older workers, the employer often finds it incompatible with good business practice to do so.

Unfortunately, the present trend is toward the formation of large industrial combinations and the merging or giving up of smaller ones, with grave results to the older worker.

Concentration of business generally, through mergers and combinations, together with the introduction of more machinery, has thrown many workers out of employment in San Francisco, as well as in other parts of the United States. Of these the younger workers can find reemployment much more readily, primarily because large industry so often bars the middle-aged. The seriousness of this condition will be realized if we stop to consider that in the United States in 1914 small establishments (with a product valued at $5,000 to $20,000) hired 6.1 per cent of the wage earners. Big establishments (with a product valued at over $1,000,000) hired 35.9 per cent. In 1925, those hired by the small establishments had decreased to 1.9 per cent and those hired by large industries had increased to 56.8 per cent.

Suggestions as to Remedies

REVIEWING the arguments for and against the employment of older workers, the report gives full weight to the claim of employers that such workers are apt to be less adaptable, that old people are a greater accident risk than young persons, that they are often lacking in adjustability and are unwilling to accept new ways, that owing to changes in methods of work the experience which they consider their most valuable asset may be a real detriment to them, and that old workers often resent being under the supervision of young department heads, while to-day the subexecutives in an organization may be decidedly young men or women. Admitting all this, it is yet argued there are certain types of work well adapted to older employees, that employers might do much to preserve the physical fitness of middle-aged workers, that training might be given in the place of employment for new jobs suited to the employee's age, and that there are a number of dead-end jobs, now usually performed by boys and girls, which might well be definitely set side for the older workers. Unquestionably, such measures would involve some expense and trouble, but in the long run they offer a more satisfactory way of caring for the old worker than the method of simply turning him adrift, with the result that ultimately the public (and the employer as part of that public) must take over his support.

Taking, however, the situation as it now exists, with numbers of older persons out of work and unable to find it for themselves, the experience of the bureau seems to show the need for some agency which can afford, as a commercial employment bureau can not, to give the time and thought required to find work the applicant is

fitted for, to learn whether any jobs are available for which he is trained, to help him secure retraining if that is needed, and to aid him in adjusting himself to the new conditions of his work. Individual treatment of this kind is absolutely necessary for the successful placement of the older seekers for work.

Making the Most of the Older Employee

IN ANY discussion of age limits in industry, employers are apt to maintain that the industrial value of a worker tends to diminish as he grows older, that his output is less, that he loses more time through illness, and that more risk of accident, either to himself or others, is involved than in the case of a younger man. They admit that in certain cases the skill and experience he has acquired offset these handicaps, but they deny that this is always so, asserting that on the contrary if new methods are to be introduced his long familiarity with the old ways may be a real disadvantage. Moreover, health experts are beginning to hazard the opinion that the strain of trying to keep up with jobs to which they are no longer equal may be at least a contributing cause to many of the breakdowns in middle age, and efficiency experts are pointing out that keeping men on at jobs for which they are really not qualified is an expensive proposition. Nevertheless, employers are reluctant, both as a matter of humanity and of policy, to discharge a man simply because he is growing old. This is particularly the case where a pension system has been instituted, and the employee has looked upon this as a protection for his old age. Few industrial pension plans, however, permit retirement before 60, unless the worker is really incapacitated, and 65 is a more common age, with 70 as a not unusual limit. What is to be done with the employee who at some time after he has reached 45 begins to slip, but who will not be eligible for retirement on pension for perhaps 20 years?

The more humane and socially minded employers keep such workmen in the service, usually trying to put them at lighter jobs as they grow older. An inquiry made by the Kentucky Department of Labor showed that of 316 industrial firms in that State which were questioned on the subject, 171, or 54 per cent, replied that they made a practice of changing older workers to less laborious and less dangerous positions.[1] But when the actual practice is examined, variations appear. Such an answer may mean simply that in a general way the employer expects to put the older men at such jobs as watchmen, elevator tenders, sweepers, and the like, or it may mean that a careful effort is made to fit each man into the position where his own peculiar ability may have the fullest scope, and to safeguard the health and general capacity of middle-aged and older workers, so as to postpone as long as possible their period of diminishing efficiency. In an address delivered at the annual meeting of the National Association of Manufacturers, October 15, 1929, a representative of the Metro-

[1] Kentucky. Bureau of Agriculture, Labor, and Statistics. Department of Labor. Bull. No. 35: The elder worker. Louisville, 1929, p. 18.

politan Life Insurance Co. cited an example of such a method of treatment which had been worked out with unusual care:

The Norton Co., of Worcester, Mass., believes that the average worker wants to keep active in factory work as long as possible. The company recognizes the danger of overloading the organization with workers who are paid more than their services are actually worth.

In consequence, it has adopted a plan which has three distinguishing characteristics: (1) Considering individually each older man to determine his actual working capacity; (2) keeping each in the best physical condition possible under the circumstances; and (3) so arranging the work that each man is physically able to use the large experience which he has gained during his productive years with the company.

The plan is administered through the cooperative efforts of three departments of the company—medical, production, and employment.

The medical department has as its function the repeated physical examination of older men to determine whether they are fit for the work which they are doing; and, if not, what their physical capacity is for work in the plant.

The production department has for its function investigation of older men to see that they are employed at work which will bring them the highest return of which they are capable, thus making use of their experience and providing them with a reasonable income.

The employment department has for its function the transferring of those of the older men who because of physical reasons are unable to work any longer in the department to a department for which they are physically fitted, the decision being arrived at after consultation with the medical and production departments.

It has been found that there are at least 32 types of positions in this plant which may be filled by older workers with profit to themselves and the company.

An allowance fund has been established which is drawn upon to pay each older worker the difference between what he actually earns and the amount he is paid. This prevents a hidden charge against production. The fact that at present of 39 men 65 years of age and over only three are unable to earn fully the wages paid them is an indication of the satisfactory operation of the plan.

A pamphlet recently issued by the National Association of Manufacturers on public old-age pensions describes measures adopted by several different companies. One, finding that its costs were unduly increased by the number of older workers on its rolls, studied its operations to see where these could be profitably employed, and finally massed them in one of its units manufacturing a light specialty. Another, studying its various operations, has selected as suitable for older men a number of occupations in which they are not employed about machinery, except in the case of slow freight elevators, where it is considered that no appreciable danger is involved. Another company, which has developed a very complete plan for the care of its older workers, makes a suggestion involving a psychological principle of considerable importance:

A well-defined promotion policy should make it easier in another period of 20 years to adjust employees to less active jobs as their ages increase and as they slow up. A person who has worked up through four or five jobs always has more mental and physical resources of readaptation than one who has worked for the major part of his life upon one job.

INDUSTRIAL AND LABOR CONDITIONS

Labor Camps [1]

By Russell J. Eldridge, State Director of Employment of New Jersey

A LABOR camp is supposedly predicated on a shortage of local labor, necessitating importation from centers with an oversupply. Too often it is found that distasteful work or below-par wage rates are the motivating factor of labor-camp concessions by employers. Rates 20 per cent below local standards are common there. To the concessionaire the profit lies primarily in the price charged for board and lodging, not to speak of the sales of commissary merchandise and the profit on transportation by automobile truck, assessed at railroad rates. The control of employment opportunities is only incidental to this profit but is a necessary preliminary, as the employer is interested primarily in a full and cheap labor supply and the commissary agent in a boarding-house profit. No agent would consent to operate unless his charges were guaranteed by deduction from the first wages earned.

A laborer or a mechanic signing up for a camp shipment customarily signs an agreement that from his first wages there shall be deducted the fee of the employment agency, the cost of transportation, the cost of board and lodging, and any purchases he may make at the camp store. Frequently he posts his meager baggage as security for the charges of the first pay period.

What does he face when he signs up? He takes the statement of the employment agents at face value and puts himself in their hands. He is shipped 50 or 150 miles into strange territory. He has no funds to return to civilization and no prospect of any until he has worked two weeks, when he receives the balance of his wages after deducting a fee, usually $3 to $10, transportation costing $2 to $11, board of $9 or $10, and cost of incidentals. He has no recourse but to go out with the gang for two weeks, but almost invariably he decides on pay day that he will move on.

In discussions of the advisability of including all labor camps under the employment agency law supervision, the idea has been presented that camp operation results in a low turnover because this is necessary to maintain the boarding-house income, whereas the straight fee employment agency presumably can profit by a high turnover with repeated fees. My experience has been that labor camp turnover is very much greater than industrial turnover. Actual contact with camp conditions induces the belief that it is so profitable to shave the corners on expense of cleanliness, of adequate food supply, housing, and sanitation, that it is cheaper to permit men to leave rapidly than to induce them to stay under decent conditions. In other words, a

[1] Paper read at convention of Association of Governmental Officials in Industry at Louisville, Ky., May 20, 1930.

frequent change of personnel is less likely to produce complaint to competent authority regarding physical conditions, and of course each new shipment permits a new fee and profit on private transportation facilities.

There is keen competition for labor-camp concessions. It is the most profitable phase of employment-agency activity. Conditions in it approach the evil affecting the hotel and restaurant industry—graft in the control of jobs. Commissary agents have told me that in the past the profits were great, but that now employers' representatives demand so large a price on the pay roll as to imperil profits. It is felt that it is because of the great profits that employers no longer erect camp structures and provide kitchen and sleeping equipment but demand that the agents supply all these. It is said that depreciation of equipment approaches 75 per cent per year and the percentage of profit is declining. You can be sure that with such pressure the laborer is not exactly benefited but must still pay all that the traffic will bear.

It has been generally agreed that the old padrone system is injurious. The average commissary camp comes so close to the padrone system that one wonders why such camps are not more generally covered by employment-agency laws, with adequate supervision of both the employment feature and the living conditions.

In New Jersey the law confers the commissary privilege in return for the promise to provide or supply help. This control of employment regardless of the source of profit is deemed sufficient to warrant State regulation. It has been almost the universal experience that the average man can not be trusted to act as his brother's keeper; at least not when dollars and cents are concerned and when he is in unmolested control. This applies to prison camps, padrones in the fields and farms, and construction camps within almost a stone's throw of our great cities.

Unconcern and a more ugly feature—graft—have in many cases prevented full application of the humanitarian viewpoint or even the minimum of existing health codes. Too often health bodies are more interested in strictly professional subjects and have failed to build proper safeguards around mass housing. It is my confirmed belief that labor departments, primarily, face the responsibility of regulating camp conditions and protecting the interests of transient workers just as they have been compelled to come to the front in agitation to protect migrant child workers, although in the latter case education and health conditions are certainly as seriously involved as are working conditions. In this I am more than confirmed by the thought of the worker involved who invariably looks to the labor department for protection while on the job; and in the case of the isolated camps the control of job conditions extends to the living and all other details. Anyone living in and working out of a camp is under autocratic authority if there is no intervention.

Evils of the Labor Camp

MY FIRST experience with a labor camp resulted from several appeals to our wage claim division by men who had been brought 125 miles from home and, after working two weeks, had only a few dollars

offered to them as balance of wages. Investigation disclosed conditions typical of unrestrained camp operation. The railroad fare for that distance was $7, but the worker was charged $11. An old barn having but one door was used to accommodate 90 men. Double-deck iron cots were used and the bedding was apparently never disturbed, as the stench was terrific. With only one exit, no electric lights, and the unregulated crowding of cots, any fire outbreak would have been a holocaust. No wash or laundry house was provided, and the kitchen was in the open, having a makeshift roof and no sides. The pump was near by, and the whole arrangement was in a deep hollow, receiving all the drainage from a near-by road. The dining room was in the basement of the barn and was the only room provided with screening. Toilet facilities were entirely lacking. In this case the State board of health insisted that, as it had an insufficient force of inspectors, the local board had the duty of enforcing the State code. There was no local board to amount to anything, and the State code covered only pollution of potable water and protection of privies from flies. We insisted that the camp authorities obtain an employment-agency license, reduced the transportation charge, and applied our lay idea of housing and sanitary requirements.

Another typical camp was found to consist of two frame dwelling houses of four and five rooms, respectively. One, used as the bunk house, where a family of five probably had lived, now housed 26 men, with double cots for 40. A typical bedroom 8 by 8 feet with an 8-foot ceiling, gave a total of 512 cubic feet. Four double bunks permitted 44 cubic feet per sleeper. (The tenement-house law sets a minimum of 400 cubic feet and [illegible] factory law the same.) The one stairway to the second floor, with kerosene lamps and no pails of water or extinguishers, could scarcely be considered adequate fire protection. There were no washhouse or laundry facilities except a galvanized tub over an open wood fire in the yard. The outdoor toilets or latrines were in violation of State health codes as to fly protection, water-tight vaults, and proximity to drinking supplies. The other house contained the kitchen, store room, dining room, and quarters for the camp flunkies. While clean, a compliment to the cook rather than to the proprietor, the ice chest was the small one of the original family of five and could not possibly preserve the perishable food for this group of 26 for two days, much less the period of one week required for a visit of the proprietors' supply truck from the home center 200 miles away.

The local community seldom gains anything from a labor camp. The citizens are deprived of employment possibilities, although these are usually below par as to wages. The local merchants sell no food or supplies to the camp proprietor and no luxuries to the residents of the camp, for the commissary store takes care of such luxuries and clothing as a profitable side line. Only the bootlegger and possibly the employer profit. New York State reports instances in which two drinks per day were charged to each man whether he used them or not. Whether the employer really profits in many cases is a debatable question, as cheap and rapidly changing labor is usually very expensive labor.

These remarks result mainly from experience with railroad, highway, and general construction labor camps. The approximately 45

camps, with from 50 to 150 men in each, handle possibly 3,000 men in a season; but with the semimonthly turnover this number is greatly increased by the end of the season. In the camps of the canneries and the berry and farm regions most of the evils of the construction camp may exist, for the same reasons. In New York and Pennsylvania the inspection by the commissioner of housing for workers of any kind supplied to the employer, whether a commissary agent is involved or not, is permitted. In Pennsylvania there is a definite code of physical requirements for the commissary camp. California has developed such a control, and, significantly, it is the labor department in each case which has accepted supervision or, if you please, leadership and responsibility. Investigation of the food in camps apparently has not been embraced in these codes.

The labor camp is closely analogous to the traveling circus in the cost to the community and the trail of evils left behind. We tax the circus the most heavily of all businesses for the privilege of operating. Why should we not tax—and control—the labor camp? Like the circus it takes from the community and gives little or nothing in return. Possible thefts, disease epidemics, moral delinquencies, and loss of local trade can be expected from the unregulated labor camp just as much as from any circus or carnival.

Problems of Regulation and Control

REGULATION apparently should embrace all the customary features of the employment agency, plus supervision of cost and quality of board and lodging. The control of employment by the camp immediately introduces all the possibilities of evil charged to the unscrupulous employment agent, which is almost synonymous with the unregulated employment agent. To license from the employment standpoint is to introduce the labor department as the only public agency represented, and in public opinion delinquencies as to health, sanitation, food, and drink would be laid at the door of that department. In self-defense it apparently behooves the labor department to regulate all the features of such a camp. In New Jersey we have been forced to prepare a code of housing and sanitation going beyond even our State health code. In this we are supported by the cooperation of at least two of our trunk-line railroads, which have taken over the management of their labor camps. They report that they are able to provide better food and bedding and greater cleanliness by an increase of 100 per cent in camp assistants and medical examination of these men. They report they have greatly reduced the previous labor turnover and are able to operate at better than a cost basis.

Our problem has been complicated because of the location of the employment agency or labor source outside the State. While our law defines an agency fee as one from either the employee or the employer—and in the latter case it may be simply the profitable privilege of boarding-house monopoly in return for the supplying of help—still, many chains of commissaries contend that a license as an agency in another State exempts them from license—and control—in our State. The license fee is nominal, usually $25, so that control or regulation is manifestly the objective. We have been compelled

to amend our law so as to make the definition of fee include the furnishing of food, supplies, tools, or shelter in connection with the promise to provide help to the employer, regardless of where the help is obtained.

Some States have no laws authorizing the control of employment agencies either locally or by the State, the latter being the more desirable. Many pay no attention to labor camps. Again, the shipment of labor by an agency licensed in only one State presents so many evils impossible of control at the point of employment in another, where the complaint develops, that a revision of laws seems essential to place responsibility on the agency, not only for labor camps, but for any shipment outside the State, most shipments being to vacation and recreational centers in the East and agricultural and construction and railroad work in both the West and the East.

As to living and housing conditions made mandatory on workers because they are bound to their employment, whether furnished by the employer or a third party motivated by gain there or on employment, it seems ironical that labor departments should so fully safeguard the factory worker as to building construction, fire, toilets, sanitation, respiratory conditions, wash rooms, etc., and pay no attention to the fate of the worker taken to isolated sections to work and deprived of the freedom of choice as to where and how he shall spend the greater part of each 24 hours. Labor-camp regulation appears to be a grave responsibility but a sadly neglected one in many States.

A State apparently can not control shipments of labor unless the fee or promise of employment, or the physical location of the agency, can be legally proven to be in the territory of that State. Yet a worker, hundreds of miles from home, can be and often is the victim, at the point of destination, of gross misrepresentation or of plain change of the employer's plans which leaves him stranded or destitute. A serious moral danger is present in the large movements of females to resort locations, where business often is below expectations and jobs evaporate or are terminated before the promised period.

The remedy of a Federal licensing scheme to regulate all labor shipments across State lines is suggested. This license could be predicated on agreement to conform to agency or camp codes within the State of destination. Raising of the standard of agency laws and of camp codes could be accomplished by the grant of existing or future Federal funds for State public employment work only to the States conforming to minimum standards provided by a Federal code as to both employment-agency and labor-camp regulation. It is probably as constitutional for the Federal Government to regulate interstate traffic in labor as it is traffic in goods, but undoubtedly the Federal Government could not come into a State and regulate living or employment conditions. On the other hand, no State could project its jurisdiction beyond its borders, so that development of Federal supervision appears necessary to prevent exploitation of thousands of our workers annually, while State action is imperative to protect the camp dweller who lives and sleeps customarily in as close proximity to his fellow man as he did in the trenches in France—3 feet from the man who sleeps above him in the double deck bunk and 2 feet or less from the two men in the bunk across the aisle.

Utilization of Workers' Leisure Time—Report of Director of International Labor Office

THE report of the director of the International Labor Office to the 1930 International Labor Conference at Geneva contains a survey of the situation as regards utilization of workers' spare time. He points out that while no very outstanding measures were taken in 1929 in this matter, "there have been signs of a spirit of research, discussion, and action, and a desire for collaboration which augur well for the future."

His report follows:

Sports and Physical Culture

WITH regard to social hygiene, which the conference of 1924 considered to be inseparable from the problem of the utilization of workers' spare time, the progress mentioned last year has continued its normal course. There has been no falling off in the movement for encouraging individual hygiene by the institution of public baths and swimming pools, which are more and more appreciated by the workers during the remaining hours of sunshine after leaving the workshop. This movement is very active in Austria and Germany, and is gradually spreading to other countries. In certain aspects it is closely connected with the movement in favor of sports and physical culture, which, as stated above, is receiving special attention at present. Generally speaking, it may be said that there is a tendency in this sphere to adapt physical culture to the needs of the workers. The reduction of working hours, which has brought these exercises within the reach of a great number of workers for whom they were formerly impossible, has raised new problems and has led experts to revise the time tables, the methods and the general organization of physical culture, so as to meet the needs of this large group.

One of the most urgent problems is that of sports grounds. There is a shortage of such grounds, which are often reserved for associations whose constitution and methods frequently fail to correspond to the needs of the workers. Thus one question of topical interest is the creation of sports grounds in immediate proximity to urban centers and available not merely to certain clubs but to the whole population. The sports field of the city of Dresden is only seven minutes from the center of the city. It contains public baths and all the necessary apparatus, and has developed to such an extent that the available space, which was 1 square meter per head of the population in 1910, is now increased to almost 4 square meters. In order to meet the difficulties of transport, in cases where sufficient ground can not be found near the center of the city, specialists have advocated the arrangement of numerous small sports grounds in different quarters. Thus, in the month of September, the representatives of workers' sports organizations in Warsaw decided to ask the municipality to use the available funds for fitting up small sports grounds rather than for the creation of a large stadium.

The question of the medical supervision of sports also continues to attract attention. It is natural that the workers concerned and the organizers of sports should wish for all the recreation and physical development possible without danger to health. There are some-

times difficulties in the way of medical supervision of sports, but in spite of this 75 German municipalities have already established some 90 offices for giving medical advice on sports questions; Berlin alone possesses 12 such offices. In numerous organizations efforts to combat excessive rivalry and an exaggerated spirit of competition are being continued. Money prizes and even certificates are often prohibited, as was recently done, for example, by the Swiss Workers' Sports Association, where the only reward is a note of the achievement entered in an individual sports book.

Numerous conferences and congresses have been held by sports associations during the year. In the international sphere mention must be made of the Congress of the International Socialist Federation for Physical Culture and Workers' Athletics, held at Prague in the month of October. This organization has at present about 1,700,000 members. Among the affiliated organizations by far the largest and one of the most active is the German association. It publishes half a dozen sports periodicals with a total circulation of some 150,000 copies, and has organized a large school in Leipzig, where about 1,500 pupil-instructors attend a course of a fortnight each year. One of the resolutions adopted by the Prague congress requested the International Labor Office to study the importance of workers' spare time for the development of health and more especially the influence of sports on alcoholism. This question was already raised several years ago, and the inquiry carried out by the French Ministry of Labor will still be remembered; the important results achieved were mentioned in this report. It will be seen that the question is still of immediate interest, and that sports organizations have not lost sight of it in their efforts for the healthy utilization of spare time.

This brief survey of the present position with regard to workers' sports would be incomplete without some mention of a movement which, while distinct from the question of sports in certain aspects, is nevertheless linked up with it, namely, the organizations known as the Friends of Nature and the Workers' Week-end. Constant efforts are being made to enable the workers to spend their holidays or their week-ends in the country in pleasant places or even on distant excursions. Organizations such as the Workers' Sports Union of Finland have acquired estates and houses which they have fitted up as holiday centers for the workers. In some cases excursions or trips are organized, and camps have been set up at intermediate stages, such as those owned by the German association Naturfreunde, which possesses more than 250 houses of this type. The Italian Federation for the Organization of Excursions plans thousands of excursions and trips, while the Czechoslovak Association for the Utilization of Spare Time is endeavoring to obtain tickets at half fare on the railways for the benefit of workers on holiday. * * *

General Education of Workers

REFERENCE was made above to the importance of general education in the utilization of workers' spare time. The present interest in this question is not shown by any important innovations, but the movement is continuing to extend steadily. Practically every day

new courses or new institutions for the education of the workers are being formed and the existing organizations are being extended. Labor academies and workers' colleges continue to grow in number, and a model of this type is the large trade-union college inaugurated in the month of June at Brunnsvik in Sweden. All these institutions are growing rapidly, sometimes to a remarkable extent. In three years the Netherlands Workers' Educational Institute has set up 89 centers in different parts of the country. In Austria, in the city of Vienna alone, nonparty organizations for workers' education, which counted 8,000 pupils before the war, have now almost 55,000. In Great Britain the Workers' Educational Association, which instituted two university courses for workers in 1908, now organizes nearly 600 annually. The number of pupils passing through the colleges affiliated to the National Council of Labor Colleges was 30,000 on the average during the last three years. In Czechoslovakia, where before the war there were only two reviews dealing with the education of the workers, there are now a dozen important periodicals and numerous regional or local papers. In this country also the number of local committees for organizing civic education under the 1919 act amounts to some 9,000. Moreover, the correspondence courses begun in 1925 by the Masaryk Institute for the education of the workers were followed by more than 10,000 pupils in 1929.

At the present time workers' education takes the most varied forms—lectures, systematic courses, seasonal schools and boarding schools—and the most varied methods are employed, such as books, the theater, the cinema, and wireless. Side by side with organizations whose scope is very extensive and varied will be found others whose activities are specialized, such as, for example, the associations for organizing ships' libraries, or the organization recently created in Great Britain for setting up educational centers in the new quarters of towns. In certain countries great efforts are being made to provide means of education and distraction for agricultural workers. In Italy, for instance, the Dopolavoro Institute in 1928 instituted centers for the utilization of workers' spare time in 2,100 rural communes out of a total of just over 7,000; it is expected that the number of these centers will have been doubled in 1929. The central bodies of this institute have sent about 120,000 volumes to the country districts and have formed 1,300 small libraries. An itinerant theater also visits villages and isolated towns. The theater is, indeed, being more and more employed as a means of workers' education: Either the workers are encouraged to form dramatic societies or performances by professional actors are provided, as in the case of the People's Theater in London, set up under the auspices of the Labor Party at the end of 1929.

Although the use of wireless has not yet become general as a means of workers' education and has been widely applied only in a few countries, notably in Czechoslovakia, Great Britain and Italy, rapid progress has been made in the use of the educational cinema, encouraged by the recently created International Educational Cinematographic Institute in Rome.

There is no doubt that the reduction of working hours has been one of the chief factors in the remarkable development of the workers' education movement. Such at least is the conclusion arrived at by

L. R. Alderman, of the United States Bureau of Education, who undertook an inquiry on this subject. This inquiry showed the extent to which the education of adults has developed as a result of the increased amount of spare time available. At the moment nearly 30 States in the United States have legislation on the subject, and public schools for adults have been set up in some 2,500 municipalities.

The extent and variety of this movement is certainly very satisfactory, but the most hopeful sign for the future is not so much its steady development as the lively interest it arouses almost everywhere and the discussions, criticism, and suggestions to which it gives rise. In addition to the interesting discussions of older associations, such as the congress held in Cambridge in August last by the World Association for Adult Education, there are numerous conferences held by more recently formed organizations, as well as books and magazine articles in which the aims and methods of workers' education are examined afresh. The question is raised whether the traditional system of education based on that given in secondary and higher-grade schools is the best type for the workers, or, on the other hand, whether other methods and other subjects would be more suitable. Should this system of education aim at reaching the masses, or should it be restricted, at the moment, to the training of a selected minority of the workers? These questions are now being discussed very thoroughly in the light of the experience of ten years of increased leisure. After a comparatively long period of theory and experiment, not always successful, an increasing number of institutions have decided to base their action on a deeper knowledge of the conditions. Thus, in the Netherlands, the new Institute for Workers' Education is endeavoring to ascertain, on the basis of a system already applied in Germany, what are the real interests of the workers, so as to guide its policy along the best lines. Similarly, the study section of the Masaryk Institute in Czechoslovakia has carried out numerous inquiries in order that workers' education may be established on a scientific basis with a systematic curriculum. The office considers that it could assist in this research work, and that the moment has come for it to join the number of those who are seeking for a clear view of this movement, which is still somewhat vague, and to draw the necessary conclusions from the experiments made in different countries. This year, therefore, the office is to undertake a study of the various problems connected with workers' education, or at least of certain aspects thereof, and it is hoped that this study will come at an opportune moment and prove useful to all who are dealing with these questions.

Progress in Collaboration

THE recommendation of 1924 insisted strongly on the value and necessity of cooperation and coordination of various efforts in connection with the utilization of workers' spare time. This year it may be said that definite progress has been made in the sphere of collaboration. Everywhere signs can be seen of the desire and the will to coordinate scattered activities, to look beyond local boundaries and the limited fields in which work has already been begun, and to act on a wider scale with the assistance of other institutions. Numerous

organizations are endeavoring to form federations or to set up joint bodies, as for example, the numerous associations for workers' spare time in Switzerland, which have decided to unite and work together for developing the physical and general education of the workers. The French distributive cooperative societies, which up to the present had dealt with the question of spare time only spasmodically, placed the question on the agenda of the congress of their federation which met at Royan in May, 1929, and have decided to institute a national committee for workers' spare time which will soon set to work and coordinate the various efforts in this sphere.

Action of Public Authorities

IT WOULD appear that the public authorities might give fuller support to this desire for coordination and for the extension of the work to the whole of their respective countries. It is true that they are not entirely uninterested in the question. Certain encouraging examples may be referred to, such as the action taken by the Japanese Department of Education, which in November last organized a conference of representatives of the trade-unions and several competent persons to prepare a systematic plan of action for the education of the workers. In other countries considerable efforts are being made in the direction of developing libraries for the people. The results obtained in this sphere in Belgium are well known. In Finland the act concerning people's libraries, which came into force in 1929, guarantees subsidies up to 50 per cent of the cost of the libraries. A State organization has been set up with representatives of the associations concerned for encouraging and facilitating action in this sphere and the training of the necessary staff. In Czechoslovakia, under the act concerning people's libraries of 1919, certain provisions of which did not come into force until 1929, the number of libraries and the number of books lent have been quadrupled. It is to be hoped that the public authorities will take a more and more active part in this question of workers' spare time, and will at least satisfy the present needs for coordination, even if only by setting up, as recommended by the conference, central bodies representing all the interests concerned and aiming at coordinating and harmonizing the work of separate institutions. This year again it must be noted with regret that only two countries, Belgium and Italy, possess such organizations. The Italian Dopolavoro Institute is doing valuable work, to which reference was made above, and its activities extend to the most varied spheres. On September 1 last it had 1,234,000 members and had organized about 61,000 meetings (for sports, workers' education, etc.) attended by 4,500,000 workers.

Belgium is making the fullest use of the National Committee on Workers' Spare Time and Workers' Education, the creation of which was decided by Parliament. Two of the provincial committees on workers' spare time, those of Hainaut and Liege, are celebrating on an important scale their tenth anniversity this year, by organizing a series of exhibitions and lectures and an international congress, which will be held at Liege, and which will very probably mark an important date in the history of this question.

The Search for the Best Methods

THERE is no doubt that this movement is still in its infancy, and great efforts are still necessary before workers' spare time can be so organized that each man may have full opportunities for self-expression. But there is no lack of good will; it is merely a question of finding the best methods, and they are being sought for everywhere.

New Directory of Personnel Research Agencies

INDUSTRIAL relations, working conditions, and the economic and social welfare of workers of all classes continue to offer an apparently inexhaustible field for study and research, and the number and extent of the agencies engaged in that kind of research are growing constantly.

In 1920 a conference held under the auspices of the Engineering Foundation and the National Research Council requested the Bureau of Labor Statistics to undertake a survey of existing agencies in the field of personnel research and "to issue a bulletin describing their scope, methods, and present activities." The bureau responded to that request by issuing, in 1921, as its Bulletin No. 299, a report, "Personnel Research Agencies," which was presented as "a guide to organized research in employment management, industrial relations, training, and working conditions."

Changes and developments over the intervening decade, during which personnel research work has crystallized and developed along scientific lines, have necessitated a revision of the earlier work. This revision has just been issued as Bulletin No. 518 of the Bureau of Labor Statistics. This is a directory and encyclopedia of organized research in the personnel field, covering official Federal and State agencies, nonofficial associations, societies, and foundations, and universities and colleges which are making studies and investigations in that field.

Personnel research activities are classified into: Employment management and personnel work; industrial relations (wage and other incentives, adjustment, joint control, etc.); working conditions, hours of labor, fatigue and efficiency; employment, unemployment, placement, and turnover; safety, accidents, standards, and codes; industrial hygiene and occupational diseases; industrial morbidity and mortality; industrial psychology; intelligence, trade, and aptitude tests; vocational education and training; cost of living; pension and retirement systems; employment of women; child labor, vocational guidance, and juvenile placement; handicapped and disabled workers; psychopathic and mentally deficient workers; foreign-born workers; colored workers; and public employment.

All of the agencies engaged in each of the specified fields are listed; for example, under the heading Safety, Accidents, Standards, and Codes, will be found all the organizations (Federal and State agencies and nonofficial associations and institutions) which are active in accident-prevention work and in the establishment of safety codes and standards.

The text material covering each organization gives, in addition to address and name of the executive officer, the form of organization,

and its general purpose and major activities. Published studies, reports, and periodicals are listed, and mention is made of current work and research plans for the immediate future.

The bulletin thus offers, as completely as the bureau was able to secure it, information on the agencies which are active in each of the fields classified as personnel research work, their officers and affiliations, and a record of their work in personnel research since 1921.

Building Trades Operatives and Rationalization in England

AT THE annual conference of the National Federation of Building Trades Operatives, held at Whitley Bay, June 17–20, 1930, and reported in the Operative Builder for July, much attention was devoted to the changes going on in the industry, changes amounting, it was held, to an industrial revolution, embracing all aspects and branches of the industry.

This conference is fully alive to the fact that the building employers, both public and private, are doing their utmost to deepen, extend, and speed up this revolutionary process by consciously adopting the policy known as rationalization, which has for its primary object the maximum of production for the minimum of cost, especially the minimum of labor cost. To this end there has been and is taking place the coordination of building concerns, the simplification of plans, the introduction of new methods, improved technique, and the application of scientific knowledge and organization. The increasing use of labor-saving machinery and new and synthetic materials, combined with the methods of intensified exploitation adopted through standardization and specialization are undermining the standards of the operatives, rendering their position in the industry precarious, and adding enormously to the unemployed.

The conference accepted the fact that rationalization is inevitable, but held that it should be accompanied by a progressive improvement in the lot of the workers. Owing to the number of small builders and the casual nature of much of the work, it was considered impossible to lay the responsibility for proper adjustments to the new conditions on the individual employer, but the industry as a whole and the public authorities might well take action to see that rationalization should not be carried out to the detriment of the worker, but that he should share in the benefits it brings about.

This conference, therefore, urges the adoption of the following measures as being calculated to safeguard, to some extent, the interests of the operatives in the present situation:

A 40-hour working week without reduction of the total weekly wage.

Minimum annual holiday of two weeks and all statutory holidays with pay.

Pensions at 60 years of age sufficient to maintain pensioners with dependents in comfort without their having to struggle for a livelihood in industry.

Raising the age of entrants into the building industry to 15 years.

Report of English Committee of Inquiry into Cotton Textile Industry

SOON after its accession in the summer of 1929 the Labor Government appointed a committee "to consider and report upon the present condition and prospects of the cotton industry," and to make such recommendations for the improvement of the position as might be suggested by the facts disclosed. (See Labor Review, October,

1929, p. 51.) This committee has recently made its report, which has been published in full as a supplement by the Manchester Guardian for July 5, 1930.

Comparing pre-war and present conditions, the committee finds that there has been a serious worsening of the position of the industry, differing in kind and degree from the periods of depression before the war, which were due to passing causes and were usually short.

> The present depression has been of unexampled duration and gravity. The world consumption of cotton piece goods appears to have actually risen, but the yardage of such goods exported from this country is now less than two-thirds of what it was in 1910–1913. Still more ominous is the fact that this decline in trade has not been arrested.
>
> The main losses so far have been suffered in the coarse standard lines which form a very important part of the whole trade. From these, Lancashire has already been largely ousted, and the stress of competition is now extending also to medium goods. In high-class goods, Lancashire still holds her own, but it can only be a matter of time before Lancashire may have to withstand an attack even in her own high-class specialties.

The countries which have made the greatest inroads into Lancashire's trade—India, Japan, and, to a less extent, China—gained their start during the war, when British manufacturers were so handicapped that to a large extent they were out of the market. The United States shows signs of becoming a dangerous competitor as the industry passes to the new factories in the Southern States, equipped with the latest machinery and staffed with cheaper labor than is obtainable in the North. There is no mystery as to why England has lost and is losing trade.

> After making all allowances for the disadvantages which have their causes outside the cotton industry and are shared by the Lancashire cotton industry with other British export trades, we are satisfied, from the evidence laid before us, that the British cotton industry has failed to adapt its organization and methods to changed conditions and so has failed, and is failing, to secure that cheapness of production and efficiency in marketing which alone sells staple goods in the East to-day.

Recommendations

To MEET foreign competition successfully there must be cooperation between employers and employees in all branches of the industry to reduce costs and increase efficiency. Three lines are specified along which these ends may be obtained:

1. The technical improvement of the spinning and manufacturing sections, involving considerable reequipment.
2. The formation of larger units within each section of the industry.
3. The extension of cooperative efforts on the lines initiated by the joint committee of cotton trade organizations.

These methods are interrelated, and it is not to be expected that any one of them by itself could be effective.

Under the head of technical improvement, it is suggested that for the production of cheap goods Lancashire should adopt the short-stapled Indian cotton used largely by its competitors, instead of the long-stapled and more expensive American cotton. This might involve the use of ring spindles instead of the mule spinning now generally used, and might also require a readjustment of the balance between card room and spinning machinery. High-draft spinning machinery and high-speed winding machinery also offer possibilities

of valuable economies. Automatic and semiautomatic looms are used extensively by England's competitors with good effect.

These do not, as a rule, give a greater output per loom, but each weaver can mind a very much larger number of looms than in the case of the ordinary power loom as used in Lancashire. In this way an important saving in wage costs is possible concurrently with an improvement in the remuneration of the individual weaver.

The initial cost of these machines, it is pointed out, is high, so that they could not be economically worked on a single shift per day. But such a change as the introduction of the double-shift system involves questions of cost and of policy vital alike to employer and operatives, and this brings up the question of the attitude of organized labor.

One important reason why the question of improved methods and equipment has not received adequate examination is that many of the firms engaged in the spinning and manufacturing sections are financially weak. Another is that such improvements necessitate readjustment of hardly won and long-established agreements between employers and employed. Moreover, the introduction of some of them must, as the first result, cause increased unemployment.

We are convinced that these technical changes of machinery and method require immediate and serious examination by employers and operatives in concert. There must be whole-hearted cooperation between the two sides, based upon a frank disclosure of information about the changes to be made and the results expected from them.

Need for Amalgamation

STUDYING the organization of the industry, the committee points out that it is divided into independent and sharply defined sections, each made up of a large number of competing firms. The spinning and manufacturing sections, the merchanting or selling end of the business, the finishing and the packing sections, all work independently of each other. The Lancashire Cotton Corporation, formed in 1929 (see Labor Review, March, 1929, p. 66), marks the beginning of an attempt at unified operation in the spinning section, and the trades in the finishing section, the bleachers, dyers, and printers, are strongly organized. The packing section is also strongly organized, but none of these sections work cooperatively, and in the weaving, spinning, and merchanting sections competition is unrestrained. Conditions in the selling or merchanting sections are unfavorable for cheap production. In general, the manufacturers rely on orders secured through the merchants, and produce only to order. This has the disadvantage that while the merchant's business is to sell goods at a profit, he is not concerned to sell the goods of any particular producer, and is not inclined to face a possible loss on a large speculative order for the sake of diverting trade from a foreign to a British producer. Moreover, the merchants are too numerous, and competition among them is too keen for the advantage of the manufacturers.

Foreign orders tend to be split up among several merchants at lower prices than those at which they would have been given to one. We were informed in evidence that in some cases the number of merchants' representatives visiting a market so far exceed requirements that the orders obtained are insufficient to cover the cost of the salaries of the representatives employed.

To meet this situation, large amalgamations seem essential. Combinations of spinning and weaving concerns would be most effective, but if such mergers are not possible at present, much could be done

by forming larger units within each section of the industry. Such combinations would make it possible for the cooperating managements to take advantage of technical improvements and secure economies in operating costs, they would enable a common policy to be formulated for each of the sections, and they would provide a firm basis for such a measure of coordination between those engaged in the various processes of production and marketing as would enable Lancashire to regain her position in the world markets. The new units formed should be strong enough to formulate a definite production policy and to enter into arrangements with one another and with the other sections of the industry, including the merchants and the finishers, for a steady and harmonized campaign.

> One primary object to be secured would be the sale abroad of standard goods at the world's market price. This bulk trade is essential to the well-being of the Lancashire industry. Another important object would be to give larger and steadier orders to the finishers. The reduced cost of executing such orders would enable the finishers to reduce their charges and thus, without loss to themselves, to aid the all-round reduction in production costs which is so urgently required.

The committee admits that in connection with such amalgamations considerable sums of money may be needed for reconditioning and equipping mills and for development, and that such capital can not be found within the industry itself. Assurance has been received, however, that for any comprehensive and satisfactory rationalization scheme aimed at the reduction of costs and improved methods of marketing, the necessary capital will be forthcoming.

The committee commends the work that has already been done by the joint committee of cotton-trade organizations, and urges that its position be strengthened and its activities developed. It also urges the sending of a mission to the Far East to study on the spot the various developments which have affected the Lancashire industry.

In commenting upon this report, the London Economist (July 12, 1930) calls attention especially to two paragraphs:

> No nation could tolerate the neglect of hopeful means of recovery when confronted with the decline of so important an export industry, and with the burden of hardship and misery which such a decline must mean to the workers whose employment is destroyed. The crisis is urgent and immediate action is imperative.
>
> We are confident that the organized operatives and employers of Lancashire will embark forthwith upon the serious consideration of the measures essential to the recovery of their trade. If, however, this hope is disappointed, or if any section proves recalcitrant, we think it right to place on record our considered view that it would be the duty of his Majesty's Government themselves to consider inviting Parliament to confer upon them any necessary powers.

"The idea of coercive action by the State in the Lancashire cotton industry," adds the Economist, "is not one which we should be inclined to welcome, and we trust that Lancashire will see the wisdom of losing no time in setting its own house in order."

CHILD LABOR

Child Labor in Fruit and Vegetable Canneries

THE Federal Children's Bureau has recently published a series of studies of children in the fruit and vegetable canning industry,[1] carried on during the seasons of 1923, 1925, and 1926. A study of conditions in the State of Washington was made in 1923, in 1925 surveys were made in Delaware, Indiana, Maryland, Michigan, New York, and Wisconsin, and in 1926 a supplemental study was made in New York. In all, the studies covered 560 canneries, employing 56,828 workers, of whom 3,403 or 6 per cent were under 16 years old. The percentage which children in this age group formed of the total number of employees varied from 1.7 per cent in New York to 9.5 per cent in Maryland and 9.4 per cent in Michigan. This probably understates the importance of children in the industry, since only those found working at the time of the bureau's inspection were enumerated. But the work is subject to extreme fluctuations, and a visit made at the beginning or near the ending of a season, or between the crops handled by a particular cannery would show a smaller number of children at work than one made at a different time. Judging from the proportion of workers under 16 found actually employed in the canneries visited, it is estimated that the number employed in all the canneries of the seven States included in the investigation would have been at the season's peak at least 5,500.

Work Done by Children

MUCH of the work done by children is light, the character of the tasks varying with the kind of crop handled. Nearly half the children in all the canneries visited worked as tomato peelers, taking out the core of the tomato with a sharp knife and slipping off the skin, which had been loosened by scalding. In canneries not equipped with mechanical conveyors, boys were sometimes found carrying heavy pails of tomatoes over wet and slippery floors from the scalding machines to the peelers, or lifting and emptying heavy pails of tomato waste. Where crops other than tomatoes are handled, children may be employed in husking, sorting and trimming corn, in snipping beans, in picking over peas shelled by machine, and in cleaning, sorting, and inspecting fruit. They are also engaged on a variety of miscellaneous jobs—

> Inspecting cans "on the line," removing cans from the closing machine and piling them in crates, trucking and carrying crates, boxes and filled cans in warehouses, labeling cans, making boxes, and stamping boxes are only some of the innumerable kinds of general work common to all canneries, in which boys, and to some extent girls, are employed.

[1] U. S. Department of Labor. Children's Bureau. Publication No. 198: Children in fruit and vegetable canneries—a survey in seven States, by Ellen Nathalie Matthews. Washington, 1930.

Hours and Working Conditions

IN BOTH of these respects there was ground for serious criticism. Hours are irregular, depending on the time of day the produce is delivered and the quantity to be canned, the quantity, in turn, depending on the ripening of the crop, which in its turn is affected by the weather and other factors. A breakdown in the machinery may cause a day or more of complete idleness, followed by speeding up and long hours. A cannery may operate day and night for part of a week, and be on short time, or even completely closed, for another part. In nearly all the canneries visited, the full-time day was, according to the statement of the managers, at least 10 hours, and in many it was 12 or more.

Except in Wisconsin and some New York canneries, children usually worked as long hours as adults. More than two-thirds (69 per cent) of the 3,156 in the six States in the survey in which comparable information on hours was obtained had worked 10 hours or more, and more than one-fifth (22 per cent) had worked 12 hours or more. Nearly two-fifths (37 per cent) had worked at night (that is, between 7 p. m. and 6 a. m.).

Working conditions varied widely. In some of the large canneries handling a variety of products and working for a large part of the year, conditions were equal to those in any up-to-date factory, but the small, country canneries, handling only one or two crops and operating perhaps only a few weeks during the year, are in some cases little more than sheds, with few or no conveniences to make matters easier for the workers. Wet floors and tables sloppy from water and juice, steam and heat in poorly ventilated workrooms, dangerous stairways, constant standing, and poor sanitation are cited as some of the objectionable conditions frequently observed. Another set of disadvantageous conditions to which children are exposed was found in connection with the camps in which migratory labor was usually housed. As in the case of the canneries themselves, these varied from excellent to wholly objectionable.

Illegal Employment of Children

THREE leading violations of child labor laws were found—the employment of children under the legal age, employment of children for illegally long hours or at prohibited hours, as in night work, and the employment of children without work certificates. The employment of children under the legal age is very common, and is in part due to the fact that canneries were formerly exempted from compliance with the age features of the child labor laws. Where these exemptions have been removed, employers are often ignorant of the change, and in small and isolated country communities little care has been taken to exclude those under the legal working age. In all, 1,127 children under 14 were found at work in the canneries surveyed, and of these, 882 (78 per cent) were under the legal working age of the States in which they were found. The States differed widely in this respect, the employment of too young children being most prevalent where the practice of importing migratory labor is common.

The employment of children for illegally long hours was the commonest form of law violation encountered. Owing to the irregularity of work, it is almost impossible to enforce hour legislation in canneries

unless each plant is required to keep exact records of the hours worked by minors each day. Wisconsin is the only State included in the survey which required such a record.

The employment of children without the certificate of age required by law was common, no certificates being on file for half the minors of certificate age found at work, including those aged 16 and 17 as well as those under 16. Moreover, in a number of cases serious defects were found in the certificates filed, the gravest of these being errors in the date of birth. A well-administered employment certificate system is considered basic to the enforcement of the child labor law in canneries, and a number of suggestions are made for rendering such a system easy and convenient for the employers and the children, and effective from the standpoint of the enforcing agency.

Other suggestions for the improvement of conditions are that the more advanced legal standards of construction and sanitation already required for manufacturing establishments should be more generally applied to food-packing establishments, that the seating of girls and women at work should be given more attention, that some State agency should have authority to make and enforce regulations concerning the construction of buildings in labor camps and the sanitation of buildings and grounds and that attention should be given to the matter of providing proper care in labor camps for the children too young to work in the canneries.

INDUSTRIAL ACCIDENTS

Quarry Accidents in the United States in 1928

THE report of the United States Bureau of Mines on quarry accidents in the United States during the calendar year 1928, just published as its Bulletin No. 325, states that the death rate from accidents in the quarrying industry as a whole in 1928 was the lowest ever recorded and the injury rate was lower than for any other year for which complete and trustworthy figures are available. The death rate per 1,000 300-day workers was 1.46 as compared with 1.63 in 1927, a reduction of 10 per cent, and the injury rate was 129.95 as compared with 162.92 in 1927, a reduction of 20 per cent.

The actual number of men killed by accidents was 119, or 16 fewer than in 1927, and the number of injuries was 10,568, a decrease of 2,891. Seventy-seven of the fatalities and 6,297 of the nonfatal injuries resulted from accidents inside the quarries.

The estimated average number of days lost per accident in 1928 was 110 as against 92 in 1927.

Volume of employment was about the same as in 1927, the number of men employed in 1928 being 89,667 and in 1927, 91,517; man-days of labor performed totaled 24,397,377 in 1928 and 24,782,561 in 1927.

Table 1 shows number of men employed, and number of men killed and injured at all quarries, by 5-year periods, 1911 to 1925, and by years from 1926 to 1928:

TABLE 1.—EMPLOYMENT, NUMBER KILLED AND INJURED, AND FATAL AND NONFATAL ACCIDENT RATES IN QUARRIES, 1911 TO 1928

Year	Average days active	Men employed		Number killed		Number injured	
		Actual number	Equivalent in 300-day workers	Total	Per 1,000 300-day workers	Total	Per 1,000 300-day workers
1911–1915 (average)	240	103,803	83,206	182	2.19	7,437	89.39
1916–1920 (average)	259	80,682	69,630	146	2.10	11,161	160.29
1921–1925 (average)	263	86,967	76,377	136	1.78	13,247	173.44
1926	271	91,146	82,361	154	1.87	13,201	160.28
1927	271	91,517	82,609	135	1.63	13,459	162.92
1928	272	89,667	81,325	119	1.46	10,568	129.95

The death and injury rates per thousand 300-day workers from accidents inside the quarries in 1928 were 1.99 and 162, respectively, as compared with corresponding rates of 2.39 and 194 in 1927. For accidents outside the quarries the fatality rate was 0.99 and the injury rate 100, as against corresponding rates of 0.87 and 132 in 1927.

The principal causes of fatal accidents inside the quarries were falls or slides of rock or overburden, falls of persons, machinery, explosives, and haulage, in the order listed. Handling of rock at the quarry face was responsible for the largest number of nonfatal injuries inside the quarries, the next most frequent causes being flying objects, falls or slides of rock or overburden, haulage, machinery, falls of persons, and falling objects. The main causes of fatalities outside the quarries—at stone crushers, cement mills, limekilns, rock-dressing plants, etc.—were machinery, haulage, falls of persons, burns, and electricity, and of nonfatal injuries, flying objects, machinery, falling objects, falls of persons, handling of rock, and haulage.

A comparison of fatality rates for quarries, metal mines, coal mines, and for the quarries and mines together, in the years 1911 to 1928, is given in Table 2, which shows the number of workers, reduced to a 300-day basis, and the fatality rates per thousand 300-day workers:

TABLE 2.—COMPARISON OF FATALITY RATES FOR QUARRIES, METAL MINES, AND COAL MINES, 1911 TO 1928

Year	Quarries		Metal mines		Coal mines		Total, quarries and mines	
	Number of 300-day workers	Fatality rate per 1,000 300-day workers	Number of 300-day workers	Fatality rate per 1,000 300-day workers	Number of 300-day workers	Fatality rate per 1,000 300-day workers	Number of 300-day workers	Fatality rate per 1,000 300-day workers
1911	84,417	2.23	156,089	4.45	534,122	4.97	774,628	4.57
1912	93,837	2.27	161,662	4.09	541,997	4.46	797,496	4.13
1913	87,141	2.10	183,593	3.72	593,131	4.70	863,865	4.23
1914	68,187	2.64	142,619	3.92	526,598	4.66	737,404	4.33
1915	82,447	1.80	141,997	3.89	511,598	4.44	736,042	4.04
1916	76,457	2.26	192,455	3.62	565,766	3.93	834,678	3.71
1917	71,525	1.83	192,085	4.44	634,666	4.25	898,276	4.10
1918	59,285	2.11	181,006	3.57	654,973	3.94	895,264	3.74
1919	63,794	1.93	134,871	3.47	542,217	4.27	740,882	3.93
1920	77,089	2.31	134,540	3.16	601,283	3.78	812,912	3.54
1921	59,958	2.00	74,510	3.09	474,529	4.20	608,997	3.85
1922	68,861	1.92	97,138	3.54	405,056	4.89	571,055	4.30
1923	85,153	1.68	121,866	3.01	560,646	4.38	767,665	3.87
1924	84,426	1.63	119,113	3.51	499,896	4.79	703,435	4.20
1925	83,487	1.78	123,908	2.99	480,227	4.65	687,622	4.01
1926	82,361	1.87	123,776	3.47	559,426	4.50	765,563	4.05
1927	82,609	1.63	113,447	3.10	503,065	4.43	699,121	3.89
1928	81,325	1.46	109,345	2.50	468,680	4.64	659,350	3.89

Accidents and Coal Production in Illinois, 1929

THE accompanying statement, taken from the forty-eighth coal report of Illinois, for the year ended December 31, 1929, issued by the Department of Mines and Minerals of that State, shows the coal production and the accidents in coal mining in that State.

Number of mines operated:	
Shipping mines	200
Local mines	603
Total	803
Output:	
Shipping mines	59, 075, 995
Local mines	2, 051, 764
Total	61, 127, 759
Average days worked:	
Shipping mines	162
Local mines	125
Number of persons employed:	
Shipping mines	54, 721
Local mines	3, 875
Total	58, 596
Number of workers killed	109
Number injured (involving loss of 7 days or more)	6, 621
Tons mined—	
Per death	560, 805
Per injury	9, 232
Number employed per life lost	538
Number killed per 1,000 employed	1. 8
Number injured per 1,000 employed	113
Number of mines using open lights	159
Number of mines using closed lights	23
Number of mines rock-dusted	30

HEALTH AND INDUSTRIAL HYGIENE

Prevalence of Tuberculosis in Industry

AN ARTICLE on the prevalence of tuberculosis among industrial workers in the Statistical Bulletin, July, 1930, published by the Metropolitan Life Insurance Co., summarizes a paper by Dr. A. J. Lanza and Mr. R. J. Vane, presented at the Industrial Hygiene Conference, Chicago Tuberculosis Institute, April 25, 1930.

Tuberculosis in industry presents two phases, the report states, which are based on causal factors which are entirely distinct although at times overlapping. One factor is the general prevalence of tuberculosis among industrial workers which results from their social-economic status and the other is the tuberculosis which results from a specific occupational hazard.

Comparison of mortality rates of three classes of the population, all white males, shows that the insured group of Metropolitan Life Insurance Co. industrial policyholders has the poorest showing in regard to the prevalence of tuberculosis. This group represents the least favorable economic stratum, while of the two other groups the ordinary policyholders represent the highest, with males in the general population of the registration States coming in between and including both classes. The tuberculosis death rates for males in the registration area are lower than those for insured males in the industrial group at every age period except 65 to 74 years. In the age group 15 to 19 years the rate for the industrial group is 18 per cent higher than for males in the registration States, becoming progessively worse at each succeeding age period up to 45 to 54 years. The industrial group is at an even greater disadvantage when their rates are compared with those for males insured in the ordinary department, the industrial death rate from tuberculosis in the age group 45 to 54 years being three and one-third times that for males in the ordinary group.

The wide variations in the death rates of these classes can not be explained altogether by differences in economic position, as the effects of specific industrial hazards are also present. The rates for women are particularly unfavorable for the early age groups—the time of employment and maternity. For females in the industrial group in the age period 15 to 19 the tuberculosis death rate is two and one-fifth times that for males in the same group, while from 20 to 24 years it is 50 per cent higher. After the age of 25 the rate for women begins to decline while that for males increases, and at the age period 45 to 54 years, the period of maximum difference, the male rate is three and one-third times the female rate.

Analysis of the mortality rates on the basis of occupation is more difficult owing to the fact that statistics on occupational mortality

are meager. An analysis of occupational mortality of white persons insured under ordinary policies ($1,000 or more) was made, however, by 12 of the largest insurance companies during the years 1915–1926. This report gives, for a large number of selected occupations, the number of life-years exposed, grouped by age into two broad age groups, 15 to 39, and 40 years and over; and the actual number of deaths from tuberculosis under each occupation is compared with the number of deaths which would have been expected on the basis of death rates prevailing among standard lives of the same ages. The greatest hazard was shown by these figures to be presented by the lead and zinc mining industry, these miners having a tuberculosis mortality 8 times as great as among "standard" lives. The harmful effect of silica dust is shown by the fact that the highest ratios of actual to expected deaths were—underground lead and zinc miners, 1,800 per cent; granite and sandstone cutters, 941 per cent; copper miners, 889 per cent; and gold and silver miners, 818 per cent. Tuberculosis was responsible for one-half of all the deaths of lead and zinc miners, 29 per cent of the deaths of copper miners, and 20 per cent of those of gold and silver miners. Iron miners, who are but slightly exposed to silica dust, had a ratio of actual to expected deaths of 267 per cent and the ratio among quarry workers was 259 per cent. Although it was impracticable to separate the granite quarries from the limestone quarries, it was considered that there was no doubt that the figures would show an excessive rate among the workers in granite quarries as this was clearly indicated by the difference in the mortality ratios for the granite and sandstone cutters and the marble and limestone cutters. The ratio of actual to expected deaths among the former was 941 per cent or 16 deaths to 1.7 expected deaths, while among the latter the ratio was only 300 per cent or 3 actual to 1 expected death.

These figures are evidence of the fact that the most outstanding industrial hazard from the standpoint of tuberculosis is inorganic dust, of which silica dust is the most harmful. The report states that the exact nature of the changes which silica causes in the pulmonary tissue and its extraordinary relationship to tuberculosis are unknown and that "when we know why a silica-dusted lung becomes tuberculous we shall probably know a great deal more about tuberculosis than we do at present."

Other occupations which offer exposure to silica dust are grinding, in which the ratio of actual to expected deaths from tuberculosis was 206 per cent, or 7 deaths to 3.4 expected, and certain foundry occupations. In the foundry industry, although there was a high rate for tuberculosis, the extreme rates were found for influenza and pneumonia but the dust is considered to be a factor in the nontuberculous respiratory disease rate.

Among other occupations in which exposure to dust was not so great farmers and farm laborers were found to have the lowest rates, 80 and 65 per cent, respectively, while the high rates of others such as laborers (298 per cent), porters (400 per cent), longshoremen (300 per cent), cooks (248 per cent), and servants (174 per cent) are considered to be due largely to the social-economic status of such workers.

Cost of Medical Care

A STUDY [1] of the costs of medical care in workingmen's families was made during 1929 among several thousand industrial policyholders in the Metropolitan Life Insurance Co. as a contribution to the work of the committee on the cost of medical care. The study, which was carried out by the visiting nurses employed by the company, included reports from 3,281 families, consisting of 17,129 persons, and covered the questions of the amounts spent by a workingman's family for sickness and care of the teeth and eyes as well as the proportion of the expenditures paid to the doctor and for medicines, nurses, hospital care, and operations. The fact that the company extends a visiting-nurse service to its industrial policyholders made it possible to secure the detailed information from a comparatively large group.

The survey was begun in January, 1929, and was continued for six months. The nurses called upon families located in the industrial centers of practically every State and distributed schedules in the form of calendars, on which the policyholders were requested to keep a careful record of all medical expenditures for each day over a period of six months. Each family was instructed by the nurses as to the manner of filling out the schedule and each family was revisited every month in order to keep up the interest in the study and also to assist in keeping the records accurately.

The total expenditures for medical care of the 3,281 families scheduled amounted to $230,907—an average of $70 for each family for the six months' period, or at the rate of $140 per year. Some expense for medical care was incurred by nearly every family, only 198 families reporting no such expenditure. The sums paid out by the individual families, however, naturally showed a wide variation. Forty per cent of the total number of families spent less than $25, and 20 per cent each spent from $25 to $50 and from $50 to $100. Eighty per cent of the total number of families, therefore, spent less than $100 each for medical care during the six months. Of the 20 per cent at the other end of the scale, 38, or 1 per cent of the total number, expended $500 and over, and in one case the expenditure amounted to over $1,000. Ninety-one, or 3 per cent, of the families spent from $300 to $500; 135, or 4 per cent, spent from $200 to $300; and 397, or 12 per cent, spent from $100 to $200. In the majority of families the expenditures were not large enough to prove a severe handicap, but on the comparatively small group of families which bore the major part of the expense the burden was excessive and must have been a serious handicap.

The analysis of the distribution of expenditures by type of service shows, as would be expected, that the largest share of the money paid out went toward doctors' fees. This amounted to $98,359, or 43 per cent of the total, while medicines and hospital care amounted in each case to approximately $29,000, or nearly 13 per cent each, and the cost of operations to $15,779, or approximately 7 per cent of the total expenditure. Dental care and the services of the oculist took 7.9 per cent and 2.1 per cent, respectively, of the total. While these figures show the aggregate amounts spent for the different items they do not show the burden placed upon single families. Fees for opera-

[1] Frankel, Lee K.: Cost of Medical Care. New York, Metropolitan Life Insurance Co. Press [1930?].

tions, for example, totaled $15,779, but this was borne by 212 families at an average cost of $74 each, while among the families employing the services of a dentist the average cost was $18. These figures also represent averages, it is pointed out, and in many individual cases the expenditures incurred for the various services were considerably greater.

The amounts spent per person vary directly with the number of persons in the family. Persons living alone spent on the average more than $75; in families composed of two the average per individual was $41; in families of three the individual expense was $23, the amount spent per person decreasing with each addition to the number in the family until in families of nine or more an average of less than $7 was spent per person. The families represented in this study are of the industrial classes and maintain similar standards of living. It is therefore evident, the report states, "that persons in larger families suffer a distinct disadvantage when it becomes necessary to apply for proper medical care. They are unable to pay very much for the care of teeth, eyes, and for sickness generally and consequently are apt to forego these treatments when they are required."

Acute Effects of Exposure of Animals to Ethyl Benzene Vapors[1]

A STUDY of the effects on guinea pigs of exposure to the vapors of ethyl benzene, one of the new commercial organic compounds, has been made by the United States Bureau of Mines.

Ethyl benzene is a colorless liquid with a pungent order, the vapor of which is nearly four times heavier than air. It is used principally as an antiknock fluid, especially for airplane fuel; in the synthesis of styrols for the styrol type of resins; as a general solvent, especially for paraffin waxes; and for "spotting" in the making of cellulose acetate silks. It is also used to some extent as a lacquer diluent.

The test of the toxicity of ethyl benzene, which was carried out with guinea pigs under carefully controlled conditions, dealt only with the acute effects produced by a single exposure, the experiments being planned to give information relative to the concentrations and periods of exposure producing varying degrees of response. In the order of occurrence the symptoms were eye and nose irritation; apparent vertigo; static and motor ataxia; apparent unconsciousness; tremor of extremities; rapid, jerky respiration, becoming shallow and finally slow and gasping and ending in death.

Exposure of the animals to 1 per cent of the vapor caused these symptoms and death in from two to three hours; 0.5 per cent caused all the symptoms up to and including tremor of extremities during or after an exposure of eight hours, but did not cause respiratory disturbances and death; 0.2 per cent caused all the symptoms up to and including ataxia in eight hours; and 0.1 per cent during the same period of exposure caused only symptoms of eye irritation.

Examination of the animals dying as a result of exposure or killed after certain periods of exposure showed congestion of the brain and congestion and edema of the lungs, which were most severe for the

[1] United States. Public Health Service. Public Health Reports, May 30, 1930. Response of guinea pigs to ethyl benzene vapors, by W. P. Yant and others, pp. 1241–1250.

exposures to 1 per cent concentration of vapor till death ensued. A slighter degree of congestion was found in the animals killed after exposure to 0.5 per cent and still less in those exposed to 0.2 per cent. No changes of this type were found in those exposed to 0.1 per cent of vapor in eight hours. The degree of pathological changes increased in severity with increase in the period of exposure to a given concentration of vapor, but the severity of the symptoms decreased during the 4-day period of observation following exposure and was absent in most cases after eight days.

From the experiments it appears that ethyl benzene, from the standpoint of acute poisoning produced by a single exposure, is slightly less toxic than gasoline and benzene in high concentrations and practically the same as that of gasoline and benzene in moderate and low concentrations. The vapors of ethyl benzene were found to be irritating to the eyes and upper respiratory passages when not enough vapor was present to cause serious symptoms. Also, other warning symptoms such as vertigo appear in advance of serious symptoms and concentrations of vapor which cause injury in 30 to 60 minutes or less are intolerable to breathe.

Physiological Response of Animals to "Cellosolve" Vapor

A REPORT [1] on the acute response of guinea pigs to the vapor of "Cellosolve" (mono-ethyl ether of ethylene glycol) has been made by the United States Bureau of Mines. This study forms one of a series on the effects of new commercial organic compounds which are being made with a view to evaluating the hazards of compounds which have recently become, or promise to become, of important domestic and industrial use.

The principal use of "Cellosolve" is as a solvent for nitrocellulose and resins in the manufacture of lacquers and lacquer thinners, being used mainly in making the so-called odorless lacquers for both household and industrial use. The pure liquid compound, for which "Cellosolve" is the trade name, has a boiling point of 134.8° C. (274.6° F.). The vapors are approximately three times heavier than air.

In the study the effect on guinea pigs of exposure to different degrees of concentration of the Cellosolve vapor was determined. Because of its comparatively low vapor pressure, the highest concentration which could be obtained at room temperature was 0.6 per cent by volume. The effects of only a single exposure were noted, so that the results do not apply to the possible effects of repeated exposures. It was impossible to obtain lethal conditions with the usual exposure of 6 or 8 hours to air saturated with Cellosolve vapor at room temperature, and the exposures, therefore, were for varying periods up to 24 hours.

The symptoms resulting from 16 to 24 hours' exposure to air saturated with the vapor (0.6 per cent by volume) were inactivity, weakness, dyspnea, and death. This percentage caused death at the end of 24 hours. Exposure to 0.3 per cent for 24 hours caused death in 24 hours following exposure, and exposure to 0.6 per cent for 10

[1] United States Public Health Service. Public Health Reports, June 27, 1930. Acute response of guinea pigs to "Cellosolve" vapor, by C. P. Waite and others, pp. 1459–1466.

hours and to 0.3 per cent and 0.1 per cent for 18 hours caused occasional death in from 1 to 8 days following exposure.

Among the animals dying during or soon after the exposure, the principal pathological findings were congestion and edema of the lungs, distention of the stomach with numerous reddish-brown spots scattered over the mucous membrane; and congestion of the kidney. In animals dying 24 hours after exposure congestion and edema were the principal findings; and in those dying after three days, bronchopneumonia.

In regard to the possible harmful effects of the exposure of workmen to the vapor, the report states that air saturated with Cellosolve at ordinary room temperatures has a disagreeable odor and also produces moderate eye irritation. Since these effects give sufficient warning of the presence of the vapor it is believed that acute poisoning should not occur. Although no indications were observed that suggested the possibility of chronic poisoning from this solvent, it is pointed out that in the use of new substances it is always advisable to reduce the exposure to a minimum and to have workmen, unavoidably exposed, given complete physical examinations at regular intervals. Practically all organic vapors are toxic and present potential health hazards and there is much still to be learned about the effects of repeated exposure to relatively small amounts.

Occupational Diseases Investigated in Massachusetts in 1929[1]

THERE were 554 cases of occupational diseases investigated in Massachusetts during 1929, according to a report for that year by the division of industrial safety. The majority of the cases and all of the eight fatalities occurred among men, only 61 cases being reported among women. Lead poisoning and gas and fume poisoning each resulted in one fatality and there was one death from pneumoconiosis, two from tuberculosis, and three from anthrax.

The following table shows the number of investigated cases of occupational disease, by cause:

CASES OF OCCUPATIONAL DISEASE INVESTIGATED IN MASSACHUSETTS IN 1929

Disease	Number of cases			Disease	Number of cases		
	Male	Female	Total		Male	Female	Total
Dermatitis	292	53	345	Dust inhalation	5		5
Lead poisoning	[1] 68	2	70	Tuberculosis	[3] 5		5
Gas and fume poisoning	[1] 68	1	69	Silicosis	4		4
Chrome poisoning	22		22	Benzol poisoning	2		2
Anthrax	[2] 12		12	All other	5	1	6
Pneumoconiosis	[1] 5	4	9				
Cyanide	5		5	Total	493	61	554

[1] Including 1 fatal case. [2] Including 3 fatal cases. [3] Including 2 fatal cases.

The number of diseases listed as occupational is limited by the fact that the workmen's compensation act of Massachusetts does not, in

[1] Massachusetts. Department of Labor and Industries. Report for the year ending Nov. 30, 1929. Boston, 1930, pp. 35–51.

terms, include occupational disease. Industrial injuries have been held by numerous court decisions to include any injury, damage or harm, or disease which arises out of and in the course of the employment, which causes incapacity for work and takes from the employee his ability to earn wages. A recent decision, however, stated that simple disease resulting from employment affords no ground for recovery under the workmen's compensation act, but that the disease must also be a personal injury within the meaning of the act. The statutes require that such cases be reported by the employer to the department of industrial accidents and it is these reports which form the basis of the investigation.

The industries in which the reported cases occurred were as follows: Textile, 113 cases; tannery, 71; shoe manufacturing, 51; rubber, 35; metal trades, 35; foundry, 23; printing, 20; chemical manufacturing, 20; electrical, 20; construction, 22; paper mills, 11; storage battery manufacturing, 15; painters, 10; garages, 8; lumber, 8; granite, 4; brake lining manufacturing, 9; electroplating, 6; mercantile, 13; and miscellaneous, 60.

Investigation of the causes showed in numerous instances that working conditions and equipment were at fault. To prevent the recurrence of similar cases, improvement was made in the exhaust systems in many factories. Other improvements included better ventilation of workrooms; provision of suitable washing facilities, in some instances with hot and cold water and shower baths; provision, where necessary, of respirators; goggles, masks, wooden shoes, rubber aprons, rubber gloves, etc.; installation of first-aid rooms or equipment; and provision of suitable eating places.

The importance of skin affections as a cause of disability is shown by the fact that more than 60 per cent of the cases reported were cases of dermatitis. Nearly all of these injuries were caused by contact with irritant dusts, acids, or chemicals used in the process of manufacture. The number of cases of anthrax was larger than in any other year since 1920. Nine of the twelve cases occurred in tanneries, while of the three remaining, one man was employed as a truck driver, one as a wool opener in a textile mill, and the third was a laboratory worker.

An investigation was made of sanitary conditions in tanneries and leather-finishing establishments. The survey covered a total of 134 plants with more than 12,000 employees. Workrooms, materials handled, and working conditions were examined by inspectors having medical training. Advice was given to the managers of these plants as to methods to be followed in controlling the exposures in employment, and employees were instructed in proper safety and sanitary precautions and were advised to seek prompt medical attention at the appearance of lesions and other skin disturbances.

LABOR LAWS AND COURT DECISIONS

California Labor Law Held Applicable to Miniature Golf Courses

IN THE report of the California Department of Industrial Relations to the governor's council, dated July 29 and 30, 1930, a section is devoted to the subject of miniature golf courses and some of the problems which have arisen since the advent of this new form of pastime in the United States. Relative to workmen's compensation coverage, the report states that—

> It is illegal, and the penalties are heavy, for residents of California to enter this new industry without taking out workmen's compensation insurance for employees, and this is necessary even if there is only one boy on the pay roll.

Under the California workmen's compensation law, all private employments are covered (with the exception of casual employees and those not engaged in the course of the employer's business, farm or stock-raising labor, domestic service, and deputy clerks, deputy sheriffs, or deputy constables serving without remuneration). Therefore all employees engaged in miniature golf courses in California are subject to the act.

For the benefit of golf-course owners and others, the California State Department of Industrial Relations summarizes the child labor law as applicable to miniature golf courses as follows:

> Boys under 10 years of age and girls under 18 years of age may not be employed in occupations pursued in any street or public place; except in cities whose population is less than 23,000, according to the latest Federal census. Minors under 18 may not be employed in any occupation between the hours of 10 p. m. and 5 a. m. Minors under 18 may not be employed in excess of 8 hours per day or 48 hours per week; their time of work outside of school hours, when added to the time such minors are required to attend school, may not exceed 8 hours in any one day. All minors under 18, who are not high-school graduates, must have permits to work when the public schools are in session. Minors under 16 must also have vacation permits to work during the regular public-school vacation periods.

New York Safety Law for Window Cleaners

A LAW (ch. 605) enacted by the New York State Legislature which became effective on July 1, 1930, requires the installation of safety devices for the protection of persons cleaning windows of public buildings. In the definition of public buildings the law includes all buildings, except those of one story and dwelling houses less than three stories high, or occupied by less than three families. Chapter 605 of the Acts of 1930 therefore amends section 2 of chapter 50 of the Acts of 1921 (ch. 31, Consol. Laws) by adding a new subdivision (13) reading as follows:

> 13. "Public building" shall include a factory building, an office building, a mercantile building, a hotel building, a theater building, a warehouse building,

an apartment building, a State or municipal building, a school, a college or university building, a building containing a place of public assembly maintained or leased for pecuniary gain, or any other building more than one story high except a dwelling house less than three stories high or occupied by less than three families.

To provide for the protection of window cleaners, chapter 50 of the Acts of 1921 (ch. 31, Consol. Laws) is amended by adding a new section (202) to read as follows:

202. *Protection of persons engaged at window cleaning.*—The owner, lessee, agent, manager, or superintendent in charge of a public building shall not require nor permit any window in such building to be cleaned from the outside unless means are provided to enable such work to be done in a safe manner. A person engaged at cleaning windows of a public building from the outside shall use the safety devices provided for his protection.

The industrial board may make rules supplemental to this section by designating safety devices of an approved type and strength to be installed on public buildings or to be worn by window cleaners or both, but the absence of any such rules shall not relieve any person from the responsibility placed upon him by this section.

New York Labor Law Held Applicable to Grade-Crossing Elimination Work

BY CHAPTER 804, adopted at the recent 1930 New York State legislature, the stupendous project for the elimination of grade crossings in that State was declared to be a public work, and, as such, subject to that part of the labor law (art. 8) limiting the hours of mechanics and workmen to eight hours. Every contract for each and every grade-crossing elimination project must not only provide for the 8-hour day but must contain a clause calling for the payment of the prevailing rate of wages.

An opinion of the State attorney general, dated June 2, 1930, holds that the act is applicable also to the construction of new streets or highways across existing railroads and to any alteration or replacement of existing crossing structures. The act does not apply, the attorney general points out, to contracts entered into prior to April 25, 1930 (the effective date of the act), but such contracts may be modified by mutual consent.

The provisions of the new article (8–A) relative to the hours of labor, prevailing rate of wages, and enforcement of the law, are in part as follows:

SEC. 225. *Hours of labor on work of elimination of grade crossings.*— * * * and every contract for such elimination work hereafter entered into shall contain a stipulation that no laborer, workman, or mechanic in the employ of the contractor, subcontractor, or other person doing or contracting to do the whole or a part of the work contemplated by the contract shall be permitted or required to work more than eight hours in any one calendar day except in cases of extraordinary emergency caused by fire, flood, or danger to life or property. No such person shall be employed more than eight hours in any day except in such emergency.

SEC. 226. *Wages: Prevailing rate.*—The wages to be paid for a day's work of eight hours as referred to hereinbefore, to laborers, workmen, or mechanics upon such public works shall be not less than the prevailing rate for a day's work in the same trade or occupation in the locality within the State where such public work on, about, or in connection with which such labor is performed in its final or completed form is to be situated, erected, or used and shall be paid in cash. Every contract for such elimination work, hereafter entered into, shall contain a provision that each laborer, workman, or mechanic employed by a contractor,

subcontractor, or other person about or upon such public work, shall be paid the wages herein provided.

SEC. 227. *Enforcement, violations, etc.*—The procedure for ascertaining and determining the hours of labor and the prevailing rate of wage shall be as prescribed by section 220 of this chapter, except that the "fiscal officer," referred to therein shall in every instance, for the purposes of this article be the State industrial commissioner. * * *

When an order of the industrial commissioner has been made, any person or corporation that willfully refuses thereafter to pay the prevailing rate of wages determined by said order or willfully employs on such public work, laborers, workmen, or mechanics more than the hours per day determined by such order until such order has been changed by the industrial commissioner or by the court after adjudication upon the merits, shall be guilty of a misdemeanor and upon conviction shall be punished, for a first offense by a fine of $500 or by imprisonment for not more than 30 days, or by both such fine and imprisonment; for a second offense by a fine of $1,000 or by imprisonment for not more than 90 days or by both such fine and imprisonment, and after conviction of a second offense no such person or corporation shall be entitled to receive any sum of money nor shall any officer, agent, or employee of the State or of a municipal corporation or of a board or commission appointed pursuant to law pay the same or authorize its payment from the funds under his charge or control to any such person or corporation or to any other person or corporation for or on account of work done upon any such contract.

Lump-sum Payment Held to be Contrary to Policy of Workmen's Compensation Law in Rhode Island

THE Supreme Court of Rhode Island in a recent opinion held that it was against the policy of the workmen's compensation act to pay a dependent a lump sum when that person had no definite use for it. (Bacon *v.* United Electric Rys. Co., 150 Atl. 818.) This case arose in a lower State court of Rhode Island, when the widow of a deceased workman petitioned for a commutation of weekly payments to a lump sum.

In November, 1928, the United Electric Railways Co. of Rhode Island entered into an agreement with the wife of a deceased employee of the company for the payment of weekly compensation of $10 for a period of 300 weeks, as provided in the State workmen's compensation act. The company continued the payments until the widow filed the petition for the lump sum on January 13, 1930. The trial court, upon hearing the parties, entered a decree commuting the weekly payments to a lump sum of $2,055.86. The railroad company thereupon appealed to the Supreme Court of Rhode Island, contending that the trial court did not have authority to do this without making some provision for the reimbursement of the company in the event that the widow died or remarried during the statutory period. It also contended that there was no evidence that the commutation of the payment would be for the best interest of the widow. Reliance on the payment of the lump sum was based on section 25, Article II, of chapter 92 of the General Laws of Rhode Island for 1923, in which it was provided:

In case payments have continued for not less than six months either party may, upon due notice to the other party, petition the superior court for an order commuting the future payments to a lump sum. Such petition shall be considered by the superior court and may be summarily granted where it is shown to the satisfaction of the court that the payment of a lump sum in lieu of future weekly payments will be for the best interest of the person or persons receiving

or dependent upon such compensation, or that the continuance of weekly payments will, as compared with lump-sum payments, entail undue expense or undue hardship upon the employer liable therefor, or that the person entitled to compensation has removed or is about to remove from the United States.

From the facts in the case it was shown that the widow desired to move to Nova Scotia and care for an aunt who resided there. For her services she was to receive some compensation in addition to board and room, and she averred that she could live on the weekly payments of $10. She owed four or five hundred dollars which she was desirous of paying, but for the money remaining after the payment of her debts she had no definite use, and intended to put it away.

The Rhode Island Supreme Court, after citing two cases [1] decided in other jurisdictions, held that the commutation should not be made merely because the person receiving compensation had a desire to pay debts.

The widow (as it was admitted during the trial of the case), the court said, could without inconvenience "receive the payments periodically when living in Nova Scotia as she does now while residing in Massachusetts."

Continuing, the court pointed out that it was against the policy of the statute "to pay to a dependent a considerable amount of money in a lump sum when the dependent has no definite use for the same. The authorities agree that only exceptional circumstances can justify a departure from the general rule of periodical payments of compensation. (Sangamon Mining Co. *v.* Industrial Com., 315 Ill. 532, 146 N. E. 492; Becker *v.* Taylor & Co., 217 App. Div. 414, 216 N. Y. S. 625.) There was no evidence upon which a decree for commutation could be validly based."

The supreme court therefore affirmed the appeal of the railroad company and reversed the decision of the lower court.

Laws Relating to the Saturday Half Holiday

IN APPROXIMATELY 25 per cent of the States, Saturday afternoon has been made a legal holiday. In most instances the law applies only to public offices, but in others it includes "all purposes whatsoever." Few, if any, of the States have enacted provisions for the effective enforcement of the law. The granting of a Saturday half holiday in general in private employments may be said to be due to voluntary action of the employers. Although the practice of shortening the hours of labor on Saturday is more prevalent during the summer months than during the winter, in many companies the employees, especially the clerical workers, have the Saturday half holiday the year round.

In the following table the laws of the several States applying to Saturday half holidays are shown, with the citation of the particular act. It should be pointed out that banks and trust companies which by law or custom close at noon on Saturday are not specifically enumerated in the following list.

[1] Di Donato *v.* Rosenberg, 225 N. Y. S. 46; Dikovich *v.* American Steel & Wire Co., 36 N. J. L. J. 304.

LAWS PERTAINING TO SATURDAY HALF HOLIDAYS

State	Period of holiday	Provision applicable to—	Citation
California	Noon to midnight on Saturday.	Public offices of State and of political divisions thereof where laws, ordinances, or charters provide that public offices shall be closed on holidays.	Code, 1927, (Deering), sec. 7.
Colorado	do [1]	Cities with population of 25,000 or over	Comp. Laws, 1921, sec. 3803.
Delaware	do	New Castle and Kent Counties	Rev. Code, 1915, sec. 2841; Acts of 1919, ch. 193.
District of Columbia.	do	General application	Code, 1929, sec. 126, p. 308.
Illinois	do	Cities with population of 200,000 or over	Cahill's Rev. Stats., 1929, ch. 98, par. 18.
Indiana	do	Banks in cities with population of more than 35,000.	Burns' Ann. Stats. 1926, sec. 11378.
	do [2]	State, county, city, and township offices in counties having county seat with population of 100,000 or over.	Idem., sec. 12101.
	Saturday, after 1 p. m.	Marion County, all county offices	Idem., sec., 12102.
	Noon to midnight on Saturday.	State offices	Idem, sec. 12103.
Louisiana	do	Cities and towns with population of over 6,000.	Constitution and Stats., 1920 (Wolff), p. 527 (as amended by Acts of 1921 No. 6, Acts of 1928, No. 49.)
Massachusetts	Weekly half holiday—on Saturday, if practicable.	Laborers and mechanics employed by Metropolitan District Commission, except those at bathhouses.	Gen'l Laws, 1921, ch. 92, sec. 65 (as amended by Acts of 1930, ch. 421).
	Saturday half holiday. [3]	Laborers, workmen and mechanics employed by State, who are permanent or civil-service employees and who can be spared; but hours on other days may be increased so as to make a total of 48 per week.	Idem, ch. 149, secs. 33 and 41.
	Weekly half holiday. [3]	County employees [4]	Idem, ch. 34, sec. 16.
	do [3]	Municipal employees [4]	Idem, ch. 41, sec. 110.
Michigan	Noon to midnight on Saturday.	General application. May also apply to municipal offices by ordinance or resolution passed by city legislative body.	Comp. Laws, 1922 (Cahill), ch. 119, sec. 6232.
Missouri	do	County and municipal offices having one or more employees in cities with population of 300,000 or over and in counties adjoining such cities. Does not apply to constables, fire department or police forces.	Rev. Stats., 1919, ch. 43, sec. 5850.
New Jersey	do	Public offices of State or of counties	Comp. Stats., Supp. 1911–1924, sec. 113–5.
New York	do	General application	Cahill's Consol. Laws, 1930, ch. 23, sec. 24.
	Weekly half holiday. [3]	Females over 16 employed in factories and mercantile establishments.	Acts of 1930, chs. 867, 868.
Ohio	Noon to midnight on Saturday.	"For all purposes"	Page's Ann. Gen'l Code, 1926, sec. 5978. [5]
Pennsylvania	do	General application	Stats., 1920, sec. 11858.
South Carolina	do	Charleston and Richland Counties. "For all purposes."	Code, 1922, Vol. III, sec. 5720.
Tennessee	do	Public offices of State; also "business of every character, at option of parties in interest."	Baldwin's Cum. Code, Supp. 1930, sec. 3515.
Virginia	do	Transaction of all business	Code, 1924, sec. 5758.

[1] During June, July, and August.
[2] From first Saturday in June to last Saturday in October.
[3] Time not specified.
[4] Provision is permissive only, not mandatory.
[5] See also Throckmorton's Ann. Code, 1930, sec. 5978.

LAWS PERTAINING TO SATURDAY HALF HOLIDAYS—Continued

State	Period of holiday	Provision applicable to—	Citation
Washington	Noon to midnight on Saturday.	Elective and appointive officers in cities and counties of the first class; applies to whole force during period June to September; and to those not needed to transact business, from Oct. 1 to May 31.[4]	Pierce's Code, 1929, sec. 2706.
United States	Saturday, after 4 hours' work.[5]	Employees of the Federal Government, wherever employed.	Executive Order, May 9, 1927.

[4] Provision is permissive only, not mandatory.
[5] From first Saturday in June to last Saturday of September, both inclusive.

Legislative Provisions on Sunday Labor

ALL of the States and Territories, with the exception of the District of Columbia and the Philippine Islands, have enacted laws prohibiting various kinds of work on Sunday, though the observance of another day of the week as a day of rest usually secures exemption from this provision. In practically all of the States Sunday labor in general is prohibited, yet these same States have made many exceptions to the general law, where public necessity demands the operation and conduct of certain lines of work.

As early as 1858, laws forbidding Sunday labor were condemned as a violation of the principle of religious freedom (Ex parte Newman, 9 Calif. 502), but they are now almost universally upheld as being, rather, social and economic in their effect and a valid expression of public policy with regard to the well-being and general welfare of persons within the State. The State has, under its general police power, the authority to enact laws for the benefit of the health and welfare of its citizens. Laws, however, which have singled out special places of employment, such as bakeries and barber shops, have been held discriminatory and invalid.[1]

The power of the State to pass legislation creating a day of rest is discussed in the case of Hennington *v.* Georgia (163 U. S. 299, 304, 308, 1896). The court in that case said that "the legislature having, as will not be disputed, power to enact laws to promote the order and to secure the comfort, happiness, and health of the people, it was within its discretion to fix the day when all labor, within the limits of the State, works of necessity and charity excepted, should cease. It is not for the judiciary to say that the wrong day was fixed, much less that the legislature erred when it assumed that the best interests of all required that one day in seven should be kept for the purposes of rest from ordinary labor." The court quoted from a California decision [2] relating to the Sabbath day as follows:

> Its requirement is a cessation from labor. In its enactment, the legislature has given the sanction of law to a rule of conduct, which the entire civilized world recognizes as essential to the physical and moral well-being of society. Upon no subject is there such a concurrence of opinion, among philosophers, moralists, and statesmen of all nations, as on the necessity of periodical cessation from labor. One day in seven is the rule, founded in experience and sustained by science. * * * The prohibition of secular business on Sunday is advocated on the ground that by it the general welfare is advanced, labor protected, and the moral and physical well-being of society promoted.

[1] Ex parte Westerfield (1880), 55 Calif. 550; City of Marengo *v.* Rowland (1914), 263 Ill. 105.
[2] Ex parte Newman (1858), 9 Calif. 502.

In the case of Soon Hing *v.* Crowley (113 U. S. 703, 710, 1885), a prohibition against labor on Sunday was in the same section of the law with the provision for the cessation of labor in laundries during certain hours of the night, which was before the court. The Sunday prohibition was not involved, but the court, in upholding the night prohibition, cited as an example the laws setting aside Sunday as a day of rest, saying that they are upheld "not from any right of the Government to legislate for the promotion of religious observances but from its right to protect all persons from the physical and moral debasement which comes from uninterrupted labor. Such laws have always been deemed beneficent and merciful laws, especially to the poor and dependent, to the laborers in our factories and workshops and in the heated rooms of our cities; and their validity has been sustained by the highest courts of the States."

The case of Petit *v.* Minnesota (177 U. S. 164, 168, 1900), involved the constitutionality of a Minnesota law prohibiting Sunday labor. The law was attacked on the ground that though works of necessity or charity were excepted, the statute was invalid because barbering was specifically declared not to be a work of necessity or charity. In upholding the statute as valid, the Supreme Court said that the courts would take judicial notice of the fact that "owing to the habit of so many men to postpone getting shaved until Sunday, if such shops were to be permitted to be kept open on Sunday, the employees would ordinarily be deprived of rest during half of that day." (For Sunday labor see also the early case of Powhatan Steamboat Co. *v.* Appomattox Railroad Co. (24 Howard, 65 U. S. 247, 1860).)

Since it is recognized that certain works of necessity are demanded on Sunday, several of the States have provided laws requiring that all employees so employed shall be given a weekly day of rest, and those obliged to labor on Sunday are therefore given a free day at some other time during the week.

In the following tables are the citations of Sunday labor laws in the various jurisdictions, with special notation of States having laws providing for one day of rest in seven and exemption of persons who from religious motive observe some other day of the week.

PROVISIONS RELATING TO SUNDAY LABOR

State	Provision	Citation
Alabama	Sunday labor prohibited. *Exceptions:* Domestic duties of daily necessity or comfort, works of charity; druggists; railroads, stages, steamboats, other vessels navigating waters of State; manufacturing establishments that must be kept in constant operation; sale of gasoline, other motor fuels and motor oils.	Code, 1928, secs. 5539, 5541.
Alaska	Sunday labor prohibited. *Exceptions:* Druggists, doctor shops, undertakers, livery stables, barbers, butchers, and bakers; all circumstances of necessity and mercy may be pleaded in defense, which shall be treated as questions of fact for jury to determine, when offense is tried by jury.	Comp. Laws, 1913, sec. 2021.
Arizona	Sunday labor prohibited. *Exceptions:* Works of charity and necessity.	Code, 1928, ch. 32, secs. 1727, 1729.
Arkansas	Sunday labor prohibited.[1] *Exceptions:* Customary household duties of daily necessity, comfort or charity; steamboats and other vessels navigating waters of State; manufacturing establishments that must be kept in constant operation.	Digest of 1921, secs. 2732-2735.
California	(2)	

[1] But observance of another day than Sunday exempts person from act.
[2] Law provides only for one day of rest in seven. Laws forbidding Sunday labor have been held unconstitutional in cases of Ex parte Newman (1858), 9 Cal. 502, and Ex parte Westerfield (1880), 55 Cal. 550.

PROVISIONS RELATING TO SUNDAY LABOR—Continued

State	Provision	Citation
Colorado	Sunday labor prohibited. *Exceptions:* Works of necessity and charity.	Comp. Laws, 1921, secs. 6904, 6920, 6921.
Connecticut	Sunday labor prohibited.[1] *Exceptions:* Trains carrying United States mail or perishable freight and such other trains or classes of trains as authorized by public utilities commission; handling, loading or unloading of freight until 8 a. m. in case of necessity, or for the preservation of the freight; operation of electric cars; works of necessity or mercy; druggists; sale of milk, bakery products, fruit, ice, ice cream, confectionery, non-alcoholic beverages and drinks, tobacco in any form, smoker's supplies, newspapers and periodicals, drugs, automobile supplies by retail dealers whose places of business are open on secular days; farms; personal service; watchmen; superintendents or managers; janitors; persons engaged in transportation, sale or delivery of milk, food or newspapers; commercial occupations or industrial processes of a continuous nature; necessary work of inspection, repair, or care of any manufacturing or other plant or of any merchandise or stock.	Gen. Stats., 1918, secs. 3755 (as amended by Acts of 1925, ch. 105), 3757, 3869, 6450–6453.
Delaware	Sunday labor prohibited. *Exceptions:* Works of necessity and charity.	Rev. Code, 1915, secs. 932, 4784.
Florida	Sunday labor prohibited. *Exceptions:* Works of necessity or charity; household duties; printing or preparation, between midnight Saturday and 6 a. m. Sunday, of any newspaper to be circulated or sold on Sunday; circulation and sale of same, or of any newspaper theretofore printed; in cases of emergency or necessity merchants, shopkeepers and others may sell comforts and necessaries to customers without keeping open doors.	Comp. Gen. Laws, 1927, secs. 7649–7651.
Georgia	Sunday labor prohibited. *Exceptions:* Certain train transportation (see extended list of excepted occupations); works of charity and necessity.	Code of 1926, Penal Code, secs. 414–416.
Hawaii	Sunday labor prohibited. *Exceptions:* Works of mercy or necessity; newspaper printing offices; steamship companies, railroads, telegraph and telephone companies; hotels, inns, restaurants; cigar stores, ice cream parlors, soda water stands; drug stores; garages, hackmen; owners and operators of licensed shore boats and licensed automobiles; news depots; graziers and ranchmen; electric light plants, gas works; slaughter houses, conveyance of personal baggage to and from vessels leaving and arriving at port on that day, and to and from any railroad station; loading and unloading of vessels engaged in inter-island, interstate or foreign commerce, and conveyance of freight thereto or therefrom; sale and delivery of milk, bread, fruit, ice, rice, poi and flowers; and, until 10 a. m., of fresh meat, fish and vegetables; delivery and collection, until 10 a. m., of laundry or washing.	Rev. Laws, 1925, secs. 4483, 4484 (as amended by Acts of 1929, No. 94), 4487.
Idaho	Sunday labor prohibited. *Exceptions:* Hotels and restaurants (lodging and meals); livery stables, garages, automobile service stations; stores (sale of medicines or sick room supplies), undertakers (while providing for the dead); newstands (quiet sale and delivery of daily papers and magazines); sale of non-intoxicating refreshments, candies, fresh fruits, and cigars; bakeries; shoe-shining stands; receipt, transportation or delivery of express shipments of ice cream, bakery goods, dairy or perishable farm products; moving-picture houses and theaters in certain instances.	Comp. Stat. of 1919, secs. 8291, 8292 (as amended 1921, ch. 260), 8293.
Illinois	Sunday labor prohibited.[1] *Exceptions:* Works of charity and necessity; watermen and railroad companies may land passengers and watermen may load and unload cargoes; ferrymen may carry travelers and persons moving their families.	Cahill's Rev. Stats., 1929, ch. 38, par. 573.
Indiana	Sunday labor prohibited.[1] *Exceptions:* Works of charity or necessity; travelers and those engaged in conveying them; families moving to another place; keepers of toll bridges and toll gates; ferrymen; persons engaged in publication and distribution of news.	Burns' Ann. Stats. (Watson's Rev.), 1926, sec. 2574.
Iowa	Sunday labor prohibited.[1] *Exceptions:* Works of charity or necessity; persons traveling or families emigrating; keepers of toll bridges and toll gates; ferrymen.	Code, 1927, ch. 596, sec. 13227.
Kansas	Sunday labor prohibited.[1] *Exceptions:* Household duties of daily necessity or other works of necessity or charity; ferrymen who convey passengers on any day in the week; sale of drugs, medicines, provisions or other articles of immediate necessity.	Rev. Stats., 1923, secs. 21-952, 21-953, 21-955, 21-956.
Kentucky	Sunday labor prohibited.[1] *Exceptions:* Household duties; works of necessity or charity, work required for maintenance or operation of a ferry, skiff or steamboat, or steam or street railroad.	Carroll's Stats., 1922, secs. 1321–1322.

[1] But observance of another day than Sunday exempts person from act.

PROVISIONS RELATING TO SUNDAY LABOR—Continued

State	Provision	Citation
Louisiana	Sunday labor prohibited. *Exceptions:* Newsdealers; soda fountains; recreation and health resorts, watering places, public parks; sale of ice; newspaper and printing offices; bookstores; drug stores, apothecary shops; undertaking establishments; public and private markets, bakeries, dairies; livery stables; railroads, steamboats and other vessels, warehouses for receiving forwarding freight; restaurants, hotels, boarding houses; telegraph offices; theaters, places of amusement providing no intoxicating liquors are sold on premises; stores (sale of articles necessary in sickness or for burial).	Constitution and Statutes (Wolff), 1920, pp. 483, 484.
Maine	Sunday labor prohibited.[1] *Exceptions:* Works of charity and necessity; operation of common carriers; driving of taxicabs and public carriages in attendance upon arrivals or departures of such carriers; driving of private automobiles or other vehicles; printing and selling of Sunday newspapers; hotels, restaurants, garages, drug stores; sale of gasoline; certain lectures where no admission fee is charged.	Rev. Stats., 1916, ch. 126, secs. 35, 38; Acts of 1929, ch. 303.
Maryland	Sunday labor prohibited. *Exceptions:* Works of necessity and charity; retailing of tobacco, cigars, cigarettes, candy, sodas and soft drinks, ices, ice cream, ice, other confectionery, milk, bread, fruit, gasoline, oils and greases; sale of drugs, medicines and patent medicines; sale of newspapers and periodicals.	Ann. Code, 1924, art. 27, secs. 483, 484. (See exceptions for Dorchester County, Acts of 1929, ch. 419.)
Massachusetts	Sunday labor prohibited.[1] *Exceptions:* Works of charity or necessity (see General Laws, 1921, secs. 6 (as amended by Acts of 1929, ch. 118), 7, 19, ch. 136, for other exceptions).[3]	Gen'l Laws, 1921, ch. 136, secs. 5-7, 12, 19, 20; Acts of 1929, ch. 118. Acts of 1930, chs. 143, 179.
Michigan	Sunday labor prohibited.[1] *Exceptions:* Works of necessity and charity; barbers may minister to deceased persons.	Comp. Laws, 1915, secs. 7764, 7765, 7767, 7769, 7771-7773.
Minnesota	Sunday labor prohibited.[1] *Exceptions:* Works of charity or necessity, including whatever is needed during day for good order, health or comfort of community; serving of meals on premises or elsewhere, by caterers; sale (in a quiet and orderly manner) of prepared tobacco in places other than where intoxicating liquors are kept for sale, fruits, confectionery, newspapers, drugs, medicines, and surgical appliances.[3]	Mason's Stats. 1927, secs. 10234, 10236.
Mississippi	Sunday labor prohibited. *Exceptions:* Ordinary household duties of daily necessity or other work of necessity or charity; labor on railroads, steamboats, telephone or telegraph lines, street railways or in the business of a livery stable, garage or gasoline filling station, or ice houses; and labor in meat markets in municipalities of less than 5,000 inhabitants; apothecaries or druggists who may open stores for sale of medicines.	Hemingway's Ann. Code, 1927, secs. 1157, 1158.
Missouri	Sunday labor prohibited.[1] *Exceptions:* Household duties of daily necessity, and other works of necessity or charity; ferrymen conveying passengers; sale of drugs, medicines, provisions or other articles of immediate necessity.	Rev. Stats., 1919, secs. 3596, 3597, 3600.
Montana	Sunday labor prohibited	Rev. Codes, 1921, secs. 11039-11041.
Nebraska	Sunday labor prohibited.[1] *Exceptions.* Works of charity and necessity; families emigrating or moving; watermen landing passengers; superintendents and helpers of toll bridges or toll gates; ferrymen conveying travelers; railroad companies running necessary trains; barbers doing work in connection with medical treatment of persons confined to their rooms or in a hospital, and being under the care of a physician (considered as work of necessity).	Comp. Stats., 1922, secs. 9795, 9797.
Nevada	Barbering prohibited on Sunday	Rev. Laws, 1919, p. 2641.
New Hampshire	Sunday labor prohibited. *Exceptions:* Works of necessity and mercy; making of necessary repairs in mills and factories which could not be made otherwise without loss to operatives; entertainment of boarders; sale of milk, bread and other necessaries of life, drugs and medicines.	Public Laws, 1926, ch. 385, secs. 3-5.
New Jersey	Sunday labor prohibited.[1] *Exceptions:* Works of charity and necessity; dressing of victuals in private families, lodging houses, inns, and other places of entertainment for use of sojourners, travelers or strangers; railroad company may run one passenger train each way; newspapers; sale and delivery of milk; hire of carriages for driving, stages in cases of necessity or mercy or in carrying mail to or from any post office; necessary railroad and ferryboat transportation.	Comp. Stats., 1910, p. 5712, secs. 1-4, 13, 33, 34; Acts of 1914, ch. 252, sec. 9 (as amended by Acts of 1919, ch. 36); Acts of 1927, ch. 116.

[1] But observance of another day than Sunday exempts person from act.
[3] But persons working on Sunday must be given one day of rest during week.

PROVISIONS RELATING TO SUNDAY LABOR—Continued

State	Provision	Citation
New Mexico	Sunday labor prohibited. *Exceptions:* Works of charity, necessity or mercy; in cases of necessity farmers and gardeners may irrigate their lands and, when necessary to preserve same, may harvest grain and other products; cooks, waiters, and other employees of hotels and restaurants; butchers and bakers.	Comp. Stats., 1929, secs. 35–4002, 35–4003.
New York	Sunday labor prohibited.[1] *Exceptions:* Works of charity and necessity; sale, service, or delivery of articles of food, before 10 a. m., and by delicatessen dealers also between 4 p. m. and 7.30 p. m.; serving of meals to be eaten on premises; catering; sale of prepared tobacco, milk, eggs, ice, soda water, fruit, flowers, confectionery, souvenirs, newspapers, gasoline, oil, tires, drugs, medicines, surgical instruments, except in places where spiritous or malt liquors or wines are kept or offered for sale.[3]	Cahill's Consol. Laws, 1930, ch. 41, secs. 2140–2147, 2153.
North Carolina	Sunday labor prohibited. *Exceptions:* Works of charity and necessity. Forsyth and Johnson Counties only—Hotels, boarding houses, restaurants, cafés furnishing meals to actual guests; sale of goods for medical or surgical purposes by drug stores with licensed pharmacists; sale of tobacco and cigars; sale and delivery of ice and dairy products; livery stables, garages; publication and sale of newspapers.	Code, 1927, ch. 75, secs. 3955–3957,
North Dakota	Sunday labor prohibited.[1] *Exceptions:* Works of charity and necessity; operation of steam railroads, street railways, telegraph and telephone systems, electric light, gas, heat and power systems; livery and feed barns, hacks, taxicabs, buses, automobile garages and supply stations; bakeries; bootblack stands; popcorn stands; newspaper plants; barbers shaving or otherwise preparing dead for burial; sale of meats and fish (before 10 a. m.), foods to be eaten on premises, drugs, medicines, surgical appliances, milk, ice cream, soda fountain dispensations, fruits, candy, confectionery, tobacco, cigars, newspapers and magazines, except in places where gaming is carried on or in pool rooms, billiard halls, bowling alleys, temperance saloons, unless gaming is discontinued from midnight on Saturday until 6 a. m. on Monday.	Comp. Laws, 1913, secs. 567, 9235–9237, 9239. (See Supp. 1913–1925, for secs. 9236, 9240, 9242.)
Ohio	Sunday labor prohibited.[1] *Exceptions:* Works of charity or necessity; families traveling; watermen landing passengers; keepers of toll bridges, toll gates, or ferries; druggists selling intoxicating liquor for medicinal purposes only, on written prescription of regular practicing physician.	Page's Ann. Gen. Code, 1926, secs. 13044,13045,13046, 13047,13048,13052.
Oklahoma	Sunday labor prohibited.[1] *Exceptions:* Works of necessity or charity; sale of meats, bread, and fish, before 9 a. m.; sale of food and drink to be eaten and drunk on premises; drugs, medicines, milk, ice, surgical appliances, and burial supplies.	Comp. Stats., 1921, secs. 1824–1828.
Oregon	Barbering prohibited on Sunday	Laws, 1920, secs. 2126, 2127.
Pennsylvania	Sunday labor prohibited. *Exceptions:* Works of charity and necessity; dressing of victuals in private families, bake houses, lodging houses, inns, and other houses of entertainment for use of sojourners, travelers or strangers; watermen landing passengers, ferrymen carrying travelers, persons removing their families; delivery of milk or necessaries before 9 a. m. and after 5 p. m.	Stats., 1920, sec. 20252.
Porto Rico	Sunday labor prohibited. *Exceptions:* Libraries; sugar and alcohol factories and those places for the packing, canning, and refrigerating of fruits and vegetables; coffee-cleaning mills; pharmacies, public markets; printeries; garages; bakeries; places selling coffee and refreshments only; restaurants, cafés, hotels, inns, confectionery and pastry stores; casinos, billiard rooms; ice depots; meat stands; milk depots; stands selling sweets, matches, manufactured tobacco, and newspapers; dairies; slaughter houses; livery stables; piers or docks; undertaking establishments; public and quasi-public utilities; works of emergency necessary to prevent danger or considerable financial losses.[3]	Rev. Stats., 1911, secs. 6004 (as amended by Acts of 1914, No. 24; Acts of 1917, No. 26; Acts of 1925, No. 18; Acts of 1930, No. 54), 6007.
Rhode Island	Sunday labor prohibited. *Exceptions:* Works of charity and necessity. Any town council may authorize the licensing of places for sale of milk, bread and other bakery products, fruit, ice, ice cream, confectionery, soda waters, mineral waters, nonalcoholic tonics and drinks, tobacco in any form, smokers' supplies, newspapers and periodicals, gasoline, oil, grease, tubes, tires, automotive parts, automotive servicing, tools and accessories and by persons dealing in the rental of bathing suits, of bath houses and of automobile parking space and the operation of public golf courses, and, except in the city of Providence, by persons engaged in the business of polishing shoes and cleaning hats, where the stores or places of business of such retail dealers or persons are open for the sale, rental or operation thereof on secular days.	Gen. Laws, 1923, ch. 399, secs. 18–21, Acts of 1930, ch. 1566.

[1] But observance of another day than Sunday exempts person from act.
[3] But persons working on Sunday must be given one day of rest during week.

PROVISIONS RELATING TO SUNDAY LABOR—Continued

State	Provision	Citation
South Carolina	Sunday labor prohibited. *Exceptions:* Works of charity or necessity; work in machine shops in cases of emergency.	Code, 1922, vol. 2, secs. 713–717.
South Dakota	Sunday labor prohibited.[1] *Exceptions:* Works of charity or necessity; sale of meats, milk, and fish, before 9 a. m.; sale of food to be eaten on premises; sale of drugs, medicines, and surgical appliances.	Rev. Code, 1919, secs. 3846–3851, 3854.
Tennessee	Sunday labor prohibited. *Exceptions:* Works of necessity or charity.	Code, 1918, secs. 3029, 3030.
Texas	Sunday labor prohibited.[1] *Exceptions:* Household duties; works of necessity or charity; work on farms or plantations necessary to prevent loss of crop; running of steamboats and other water craft, rail cars, wagon trains, common carriers, delivery of goods by them, receiving or storing of said goods by persons to whom delivered; stages carrying United States mail or passengers; foundries; sugar mills; herders; travelers; ferrymen; keepers of toll bridges; keepers of hotels, boarding houses, and restaurants and their servants; livery stables; markets; sale of provisions, before 9 a. m.; sale of burial material, newspapers, ice cream, milk, ice, gasoline or other motor fuel, vehicle lubricants; operation of telegraph or telephone offices and sending of telegraph or telephone messages; drug stores; bath houses.	Penal Code, 1928, arts. 283, 284, 286, 287.
Utah	Sunday labor prohibited. *Exceptions:* Hotels, boarding houses, restaurants, taverns; livery stables; retail drug stores; baths; works kept in constant operation; irrigating.	Comp. Laws, 1917, secs. 8129, 8130, 8133, 8134.
Vermont	Sunday labor prohibited. *Exceptions:* Works of charity and necessity; necessary train transportation.	Gen. Laws, 1917, secs. 7097 (as amended by Acts of 1921, No. 215), 7098.
Virginia	Sunday labor prohibited.[1] *Exceptions:* Household or other work of necessity or charity; furnaces, kilns, plants and other business of like kind that may be necessary to be conducted on Sunday; necessary steamship and railroad transportation.	Code, 1924, secs. 4570–4572, 4575.
Washington	Sunday labor prohibited.[1] *Exceptions:* Livery stables, garages; works of necessity or charity; caterers serving meals without intoxicating liquors; sale of prepared tobacco, milk, fruit, confectionery, newspapers, magazines, medical and surgical appliances; sale and delivery of dairy products.	Remington's Comp. Stats., 1922, secs. 2494, 2496, 8343.
West Virginia	Sunday labor prohibited.[1] *Exceptions:* Household or other work of necessity or charity; transportation of mail, passengers, and their baggage, running any railroad train or steamboat; carrying firearms or shooting by person having right to do so under laws of United States or State. Contracts are not void if made on Sunday.	Barnes' Ann. Code, 1923, ch. 149, secs. 16, 17.
Wisconsin	Sunday labor prohibited.[1] *Exceptions:* Works of charity and necessity; operation of railroad trains, street-railway cars or interurban railway cars for transportation of freight or mail or of passengers and their baggage; newspapers.[3]	Stats., 1929, secs. 351.46–351.49, 351.51, 351.52.
Wyoming	Sunday labor prohibited. *Exceptions:* Newspaper printing offices; railroads; telegraph companies; hotels, restaurants; drug stores; livery stables; news depots; farmers, cattlemen, and ranchmen; mechanics; furnaces or smelters; glass works, electric light plants, and gas works; venders of ice, milk, fresh meat, and bread.	Comp. Stats., 1920, sec. 7276.
United States	Delivery of special delivery mail allowed.[4]	Comp. Stats., 1916, secs. 7199, 7239, 7239a (Postal Service).

[1] But observance of another day than Sunday exempts person from act.
[3] But persons working on Sunday must be given one day of rest during week.
[4] Postal employees working on Sunday must be given one day of rest during week.

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

Operation of Workmen's Compensation Act in Rhode Island

THE eleventh annual report of the Commissioner of Labor of Rhode Island refers, among other activities, to the administration of the workmen's compensation act for the year ending September 30, 1929, and recommends some legislative changes. The principal change advocated concerns security of compensation payment to injured workers. The present law provides that any employer who has elected to become subject to the act shall either insure with an authorized carrier, or furnish satisfactory proof of ability to pay required compensation, or furnish security to guarantee payment. It is pointed out that, while the total number of acceptances recorded on September 30, 1929, amounted to 9,231, only 4,927 establishments had taken out policies of insurance among the 43 authorized carriers and 104 other acceptors had established satisfactory proof as self-insurers. Consequently, 4,200 acceptors had failed to comply with the provisions of the act, theoretically becoming liable to damage suits in the same manner as if they had not elected to accept the act. In actual practice, however, this only takes place at option of the injured employee or his dependents "through written notice within 30 days after the accident." Severe injuries and ignorance of the law frequently prevent such notification, leaving the employer liable only for the amount of compensation provided under the law, if collectible. It is recommended that the 30-day period for notification be extended to at least six months, and it is pointed out that the security of compensation payments should be enjoyed by all injured employees.

Attention is also called to several instances in which employers from other States who had performed work within the State and had accepted the provisions of the act, nevertheless failed to insure compensation payments, and after completing their work, collected their money and departed without providing compensation or medical service for their injured employees. It is recommended that provision be made to handle such cases.

A summary of the main features in the experience under the act for the year follows:

Establishments under act	5,031
Number of wage earners covered [a]	140,989
Accidents reported:	
Fatal	40
Nonfatal compensable	4,199
Noncompensable	28,365
Claims pending Nov. 1, 1929:	
Fatal	26
Nonfatal	1,193
Amount of pay roll, insured establishments [a]	$202,660,268.00
Premiums paid to authorized carriers	$1,276,952.35
Amount of pay roll, self-insurers	$43,159,120.34
Benefits paid for accidents occurring during year:	
Compensation, fatal cases	$7,289.75
Compensation, nonfatal cases	$281,593.31
Medical aid, compensable cases	$224,376.22
Medical aid, noncompensable cases	$198,508.17
Total	$711,767.45
Administrative expense	$5,715.26

New French Social Insurance Law [1]

THE social insurance law [2] which was enacted by the French Parliament March 14, 1928, and promulgated April 5, 1928, but which has never been put into effect owing to the objections of various groups, has been amended in several important particulars. The amending bill was introduced by the Government to meet the more important objections to the original bill but was much changed in the course of its consideration by both houses of Parliament and was finally adopted by the Chamber of Deputies on April 23 and by the Senate on April 27, 1930. The new act which became effective July 1, 1930, provides for two distinct systems—one for commercial, industrial, and domestic workers, and the other for agricultural workers. The insurance system does not include civil servants, miners, railway workers, seamen, etc., who are already protected by special legislation, but a special decree will be issued before July 1, 1931, fixing the rules for the coordination of these various systems with the general social insurance system.

Among the more important particulars in which the new law differs from the old may be mentioned the separate system established for agricultural workers; the change in the amount of the contribution from 10 per cent of the actual wages to a fixed sum for each of five wage groups among workers in industry and commerce amounting to approximately 8 per cent of the average wages of these workers, and to a fixed contribution of 5 francs per month for all the risks except old-age for agricultural workers plus 2 per cent of the basic wage for the old-age pensions; an increase of one month in the period during which the insurance contributions are paid for

[a] Partly estimated.

[1] France. Journal Officiel, May 1, 1930; Recueil de Droit Commercial et de Droit Social, Paris, May-June, 1930; La Voix du Peuple, Paris, May, 1930; Industrial and Labor Information, Geneva, June 2 and 9, 1930.

[2] See Labor Review, May, 1928, pp. 79-90.

unemployed persons; unlimited extension of the right to work beyond 60 years of age, the normal retirement age; an increase in the amount of the old-age pension for fathers or mothers who have raised at least three children to the age of 16; and simplification of the financial and administrative machinery through greater utilization of the resources afforded by the mutual insurance organizations and through the division of the workers into wage classes.

System for Commercial, Industrial, and Domestic Workers

ALL wage earners are compulsorily insured if their wages do not exceed 15,000 francs, or 18,000 francs in cities of more than 200,000 inhabitants and in certain industrial districts to be determined later. The maximum is increased for children over 6 weeks and under 16 years of age by 2,000 francs for the first child, 4,000 francs for two children, and 10,000 francs for three or more children for the first class of insured persons, while for workers living in the cities of more than 200,000 the increase is 2,000 francs, 4,000 francs, and 7,000 francs, respectively, making a maximum in either case of 25,000 francs.

Foreign wage earners who have their real and permanent residence in France are insured if they have worked regularly for three months, but they are not entitled to certain allowances on account of family responsibilities and certain pension additions. Workers from other countries who reside on the frontier but work regularly in France will be admitted to benefits under the system following the conclusion of diplomatic agreements fixing the conditions of control of the insurance payments in foreign countries.

The insurance system is financed by equal contributions by the employer and the worker, supplemented by certain contributions by the State. For the purpose of fixing the amount of the contributions the employees are divided annually into five classes. The classes and amount of contributions are as follows:

CONTRIBUTIONS TO SOCIAL INSURANCE OF SPECIFIED WAGE CLASSES

Wage class	Contribution	
	Per day	Per month
	Francs	*Francs*
Under 2,400 francs per year (8 francs per day)	0.50	12.00
2,400 to 4,500 francs per year (8 to 15 francs per day)	1.00	24.00
4,500 to 6,000 francs per year (15 to 20 francs per day)	1.50	36.00
6,000 to 9,600 francs per year (20 to 32 francs per day)	2.00	48.00
9,600 to 15,000 or 18,000 francs per year [1] (32 to 50 or 60 francs per day)	3.50	80.00

[1] According to population of place of residence.

In each case the amount of the contribution is divided equally between the employer and the workman. It will be seen, therefore, that the daily dues of the French workman vary from 25 centimes to 1.75 francs, representing on the average 8 per cent of the annual wages. The payment is made in the form of stamps affixed to cards held by each insured person. The employee's share of the contribution is withheld from his pay, the employer being responsible for the payment of both shares. The insurance contributions are divided

into two equal parts, one of which is reserved to cover the old-age risks and the other to cover the risks of sickness, maternity, invalidity, and death.

A special decree will establish the rules for determining the total annual wages of insured persons who work by the job or on piecework and of home workers, who are paid in part by tips or commissions, or who work only once or intermittently for the same employer when the duration of each period of work is less than one day.

Employees who, without being involuntarily unemployed, work only intermittently for wages may, under conditions to be fixed by a decree, make voluntary payments for the time during which they are unemployed and still be considered compulsorily insured, provided that they work for wages at least 90 days each year and that the voluntary payments are at least equal for each day to the amount of the total contribution for the average wage earner.

Liability to compulsory insurance ceases at 60 years, at which age the insured person becomes eligible for a pension. The wage earner may defer retirement, however, from year to year. In this case he continues to be insured against sickness and death but is exempt from all deductions on this account.

Sick Benefits

INSURED persons receive both general and special medical care, medicines and appliances, treatment in hospitals or sanatoriums, necessary surgical operations and preventive treatment. The medical care is provided in case of illness or accident except in case of occupational diseases or industrial accidents which are subject to workmen's compensation. An insured person has free choice of a physician. Medical consultations must take place at the physician's office unless the condition of the insured person does not permit.

Medical benefits are due from the date of the illness and are given until recovery or for a maximum period of six months to the wage earner, his wife, and his dependent children under 16 years of age. Any relapse occurring within two months is considered as a continuation of the original illness.

The cost of the benefits is borne by the fund or repaid by it to the insured person according to the conditions specified in the contracts. At the same time the insured person is required to bear part of the medical expenses amounting to 15 per cent if his wages are less than 15 francs per day and 20 per cent if his wages are over that amount; for pharmaceutical and other costs his share is fixed uniformly at 15 per cent. The total medical and pharmaceutical costs may not exceed in any case, per day of sickness and beginning with the first medical consultation, 50 per cent of the average basic daily wage for the preceding year. In case of sickness requiring special treatment, however, this maximum may be exceeded. The costs of hospitalization are borne by the fund but these costs, excluding doctors' fees, may not exceed the lowest rate charged in public hospitals for paying patients.

In order to be entitled to sick benefits the insured person must have paid the statutory contributions for 60 days during the 3 months or for 240 days during the 12 months preceding the illness.

The foregoing benefits, whether furnished at home or in a hospital or other institution, will be calculated on the basis of the minimum

local rates in force fixed by the professional associations of doctors, and the details of the system of calculating and supervising such benefits will be regulated by collective agreements between the funds and the doctor's organizations. When the funds are unable to conclude such agreements they must either bear a fixed part of the cost of all medical treatment or pay to the insured person or his representatives a fixed allowance for treatment not involving surgical operations or hospital treatment. The minimum daily allowance of this kind will be equal to 20 per cent of the general average of the basic wages on which contributions were paid during the previous year. In such cases the insured person will not be required to pay the usual 15 to 20 per cent of the medical expenses.

When it is necessary for the doctor to travel or when the disease requires special treatment the insured person may be paid additional allowances.

The daily cash benefit amounts to half the average daily wage of the class to which the insured person belongs. The payment of the cash benefit dates regularly from the sixth day of sickness (from the fourth day if the insured person has three dependent children) and lasts until recovery or for a maximum period of six months. If hospital treatment is required, the daily benefit is reduced by a third if the insured person has dependent children or relatives, by one-half if the insured person is married but without other dependents, and by three-quarters in all other cases. When the illness lasts more than 15 days, the insurance fund pays, for each workday beginning with the sixteenth, that part of the insured person's contribution which is allotted to the old-age pension fund.

After experience of at least two years each insurance fund will be authorized upon its demand and after receiving permission from the Superior Council of Social Insurance to reduce the percentage which the insured person pays for treatment as well as the waiting period before he is eligible for a cash benefit.

General control over all the services connected with the sickness insurance is in the hands of the insurance fund and all beneficiaries are required to comply with the conditions prescribed by a general regulation. In case of disagreement between the insured person and the fund as to his physical condition the matter is submitted to a technical committee consisting of the attending physician, a physician appointed by the fund, and one appointed by the justice of the peace. If it is a question of permanent disability the third physician shall be a specialist appointed by the president of the civil court. In case of fraud the fund will seek reimbursement.

The agreements reached between the fund and the physicians' associations and the establishments furnishing the medical care are submitted to a tripartite commission made up of an equal number of representatives of the funds, of the physicians' organizations, and of the Ministries of Labor and of Public Health including the executive committees of hospitals and public institutions. The commission has general control over the various services with the exception of the technical service and in particular is authorized to arbitrate any questions which arise between the contracting parties regarding the application of the agreements.

Maternity Benefits

A WOMAN worker, compulsorily insured, and the wife of an insured person are entitled to medical care and medicines during pregnancy and for the six months following childbirth.

An insured woman worker is also entitled to a daily cash benefit, amounting to half the basic wage on which she was paying contributions previous to pregnancy; this benefit is paid for the six weeks before and the six weeks following childbirth if she ceases work entirely during that period and if she has paid contributions for 60 days during the 3 months or for 240 days during the 12 months preceding the pregnancy. A monthly nursing benefit is paid during the period of nursing but for a period not to exceed nine months. This special allowance amounts to 150 francs per month for the first four months, 100 francs during the fifth and sixth months, and 50 francs per month from the seventh to the ninth month. An insured person who is unable to nurse her child may receive a milk allowance not exceeding in value two-thirds of the nursing bonus. In case of pathological conditions associated with the pregnancy the insured becomes entitled to sickness-insurance benefits during the period of pregnancy and for six months after childbirth.

The insured woman or wife of the insured person has free choice of the practitioner or midwife.

The medical and pharmaceutical expenses are borne by the fund or repaid by it to the insured person in accordance with contracts which are to be drawn up between the funds and the medical associations. The contribution of the insured varies between 15 and 20 per cent for the medical expenses and the pharmaceutical expenses are fixed at 15 per cent of the cost.

The payment of the maternity benefits is subject to compliance by the beneficiary with the provisions of the insurance fund for periodic examinations at home and regular attendance in maternity and nursing clinics.

Invalidity Insurance

INSURED persons who are incapacitated as a result either of sickness or of accident not covered by the workmen's compensation act, so that their working capacity is reduced at least two-thirds, are after six months entitled to an invalidity pension. If the insured person contests the decision as to the degree of incapacity, a new examination of his records is necessary and the technical commission passes upon his case. Final appeal may be made to the standing committee of the Superior Council.

For persons insured before reaching the age of 30, the disability benefit is equal to at least 40 per cent of the annual wages, based on the average fees paid each year. This amount is increased, up to a maximum of 50 per cent of the annual wages, by 1 per cent of the wages for each year (of at least 240 workdays) in excess of 30 years. For persons insured after the age of 30 the amount of the benefit is reduced by one-thirtieth for each year or fraction of a year between that age and the age at entrance. If payment of contributions has been discontinued for one year or more during the insurance period, the disability benefit is reduced one-thirtieth for each year that it has not been paid. The minimum benefit for persons insured after the

age of 30 is 1,000 francs if they have contributed to the insurance fund for at least six years, but this amount will be diminished 100 francs for each year of membership under six to a minimum of 600 francs.

In order to receive an invalidity benefit a person must have been a member of the fund at least two years and have made payments representing at least 480 days of work during the two years preceding the sickness or accident.

The invalidity pension period is fixed provisionally at five years, during which time the insured person shall receive medical care and medicines, the daily cash benefit being reduced in case of hospitalization. During this time, and under penalty of having his pension suspended, the pensioner must submit to any visits of physicians demanded by the insurance fund. Traveling expenses of pensioners who may be required to leave their place of residence in order to be examined are paid by the insurance fund. The pension stops when the working capacity is restored to more than 50 per cent.

At the expiration of the provisional period of five years and after expert medical advice the pension is confirmed, and after another five years the pensioner must, upon the demand of the insurance office, be given a final examination, after which he is transferred to the old-age insurance fund. The old-age pension begins normally at 60 years, but may begin earlier, if there is permanent incapacity for work, but with a proportionate reduction.

Old-age Insurance

INSURED persons are entitled to retirement at the age of 60 years but if they choose may defer retirement indefinitely. For the transition period during which the system is being put into effect a minimum delay of five years is required before retirement pension is allowed.

The retirement pensions amount to 40 per cent of the average annual wages for persons between the ages of 60 and 65 who have paid in to the scheme for at least 30 years a minimum contribution covering 240 days' labor each year. This pension is increased one-tenth for all insured persons who have brought up three or more children to the age of 16 years. For persons retired during the transition period before the law becomes fully effective, the pension will be equal to one-thirtieth of the normal pension for each year the contributions have been paid, but subject to a minimum of 600 francs per year.

Commercial and industrial workers aged from 60 to 65 years at the time the law becomes effective and who come within the wage limits for compulsory insurance but who are not entitled to benefits under the law of April 5, 1910, may come under the old-age insurance by paying the total amount of the annual premium for all risks for their class, while agricultural workers are insured upon paying half of the annual contribution of that class of workers. After payment of these contributions for five years an insured person is entitled to a pension the guaranteed minimum of which is 500 francs.

The insured person can claim his pension at the age of 55 if he has contributed to the fund for at least 25 years, since the age of 16. This last condition is not enforced in the case of ex-service men. There is a corresponding reduction in the amount of the pension for persons who retire at this earlier age.

An insured person may demand a lump-sum settlement of his pension, to be made in either of the following forms: (a) As a cash payment, for the part in excess of 1,000 francs annual income, to be used for the purchase of land or a house which shall become nontransferable and nonattachable under the conditions fixed by law as to nonattachable property; (b) As an annuity, half of which at death shall revert to the surviving husband or wife at an age not earlier than 55. In this case the pension will be reduced so that it will not result in any additional charge for the fund.

An insured person in demanding the liquidation of his pension may reserve the benefit of sickness insurance for himself and his wife, but must in that case make to the fund a contribution of at least 15 francs per month.

Death Benefits

DEATH benefits payable to the heirs of insured persons are fixed at 20 per cent of the average annual wages. The minimum amount is 1,000 francs for persons who have made their payments regularly, but may not exceed two-thirds of the annual wages of the deceased. The benefit is paid to the surviving husband or wife or other heirs. At least one year's contribution toward the death benefit must have been made.

Benefits for Family Expenses

PAYMENT for family expenses is made in case of the sickness, invalidity, pregnancy, or death of an insured person for each dependent child between the ages of 6 weeks and 16 years. The allowances for each child consist of a daily sickness benefit of 1 franc; an increase in the invalidity pension of 100 francs per year; and a death benefit of 100 francs. Widows of insured persons who have at least three living children, legitimate or acknowledged, under 13 years of age are entitled to a temporary orphan's allowance for each of these children beginning with the second. When both the father and mother are dead a temporary orphan's allowance of not less than 120 francs per year is paid for each child under 13 years of age and for those between the ages of 13 and 16, if apprenticed, in school, or invalids, unless in the latter case they are being cared for in hospitals at the expense of the State. These provisions apply only when the insured persons have paid at least one year's contribution.

Guaranty During Unemployment

PERSONS of French nationality who are compulsorily insured and who are involuntarily unemployed through lack of work, are exempted from payment of the social-insurance contribution for a maximum period of 4 months in any 12-month period, the payment being guaranteed by the fund. Such persons must have been affiliated to the social insurance system for an entire year before the period of unemployment and have made the payments required for sickness insurance.

The unemployment guaranty is secured by a tax of 1 per cent on the total contributions. This amount is deposited in the general insurance fund, but financially and juridically the account is separate from the other insurance resources. When the amount of the fund

is greater than the total deposits in the last year recorded, various grants may be made from this surplus to authorized unemployment funds on permission from the permanent section of the Superior Council on Social Insurance. The amount of these grants may not exceed 33 per cent of the benefits paid by these funds during the preceding year.

Authorized unemployment insurance funds include those organized by the Departments and communes, special funds connected with a trade-union or a federation of trade-unions of the same occupation or industry, mutual-aid societies made up principally of members belonging chiefly to the same occupation or industry, or agricultural insurance funds governed by the law of July 4, 1900.

Voluntary Insurance

FARMERS and agriculturists not covered by compulsory insurance, artisans, small proprietors, nonsalaried intellectual workers, and in general all persons who, without being on a salary, live principally on the products of their labor may take out voluntary insurance if they are of French nationality and their earnings do not exceed the limits set for those compulsorily insured. These limits are increased by 2,000 francs for persons who continue their compulsory insurance. Voluntarily insured persons are subject to the same provisions as to age as compulsorily insured persons for all classes of risks, but they are required to submit to a medical examination and are not admitted if they are suffering from a severe or chronic disease or total or partial disability which may increase their liability to sickness. This provision does not apply in case of old-age insurance for persons who have been registered for more than one year at the date the law becomes effective. Old-age benefits may begin at the age of 60 after a minimum of ten years' payments, but persons between the ages of 60 and 65 may take out old-age insurance provided that contributions are paid for a minimum of five years.

The voluntarily insured person may fix the amount of his contribution but it may not exceed 10 per cent of his annual earnings or be less than 240 francs per year unless he is insured only against the old-age risk, when the minimum is 120 francs per year. Voluntarily insured persons may be covered for all or part of the risks included in the law but they may not be insured for sick benefits to exceed 25 francs per workday, for a death benefit in excess of 3,600 francs, and for disability and old-age benefit in excess of 8,000 francs. Sickness insurance ceases at the age of 65.

Persons voluntarily insured are entitled to the benefits for family expenses under the same conditions as those compulsorily insured.

A reserve of at least 3,000,000 francs must be set aside each year in the general insurance fund to the credit of this group.

If the income of a person voluntarily insured exceeds at any time the maximum allowed, the insured person is notified that within six months from the date of the notification he will cease to be entitled to sickness insurance and that the contributions he continues to pay will be appropriated to insurance against death, invalidity, and old age, unless he prefers to reduce his contribution by an amount corresponding to the share set apart for the sickness insurance. Volun-

tarily insured persons who become wage earners may maintain their rights acquired under voluntary insurance.

Wives of either class of insured workers who do not earn wages may take out voluntary insurance provided they do so within six months after this law becomes effective, or within six months after marriage if they are under 35 years of age, or upon their retirement from compulsory insurance. For this special insurance they are considered as compulsorily insured upon an assumed salary of 1,200 francs and their contribution is fixed at 10 francs per month. They are not entitled to the daily benefit in case of sickness nor to the 1,000 francs death benefit. No invalidity pension is paid except in cases of total incapacity to attend to household duties. Half of the contribution is reserved for the establishment of an old-age pension, invested in an individual account. The minimum amount of the invalidity and old-age pension during the transition period is fixed at 250 francs per year. Women thus insured who become widowed or divorced may continue to benefit by the special insurance. They may retain for themselves and their children the right to medical service.

A compulsorily insured person whose annual wages pass beyond the prescribed maximum ceases to be subject to compulsory insurance as from January 1, following such an increase, but he may be admitted to voluntary insurance within the limits established for that type of insurance.

Special System for Agricultural Workers

INSURANCE is compulsory for all wage earners employed in agricultural and forestry occupations whose earnings do not exceed those for the different classes of workers in industry and commerce. Included among those subject to insurance in addition to regular farm or forestry workers are wage earners employed by rural artisans and contractors for threshing and other agricultural operations; the staffs of farmers' associations, cooperative societies, and other agricultural associations; and tenant farmers (*métayers*) who usually work alone or with the help of members of their family, and who do not own any part of the livestock at the time they enter into the agreement. The owners of property thus rented are considered as employers. The members of the family of a farmer who work with him and for him regularly without receiving remuneration in cash are not liable to compulsory insurance.

The conditions as to age of entry into insurance are the same for agricultural workers as for workers in commerce and industry. The risks covered are sickness, maternity, death, and old-age. The amount of benefits or the conditions under which they are granted are not specified in case of the first three risks but will be determined by the rules of the mutual benefit societies or of the agricultural section of the departmental fund to which these workers are affiliated. The conditions governing old-age pensions and the minimum pension are the same as for industrial workers.

Agricultural wage earners who cease to be liable to compulsory insurance may secure a settlement on their old-age insurance contracts by which they may receive three-fourths of the sums accumulated to their individual accounts in order to acquire, equip, or improve farms or rural workshops or dwellings if they are under the age of 40 and medical examination shows them to be in good health.

Agricultural workers may insure for the risks of sickness, maternity, and death in approved mutual benefit societies, agricultural insurance societies and the agricultural section of the departmental fund; and for the old-age risk in the autonomous old-age insurance funds established especially for agricultural workers, or in the national old-age pensions fund. Insured workers have free choice of the fund to which they shall belong but if they are already members of a mutual benefit society or an agricultural insurance society notice of change to another fund must be filed at least one month before the act comes into force.

The contribution, half of which is paid by the insured and half by the employer, proprietor, or tenant, consists of two parts, the contribution covering the risks of sickness, maternity, and death amounting to 10 francs per month equally divided between the employer and the insured, while the contribution covering the old-age risk amounts to 2 per cent of the basic wage. For the purpose of fixing the latter contribution agricultural workers are divided into the same wage classes as workers in commerce and industry. Certain bonuses are added to the compulsory contributions of insured persons and their employers for the different risks, which will be borne by the augmentation and solidarity fund until April 1, 1932, after which they will be borne by the State.

The Augmentation and Solidarity Fund, the departmental unions for reinsurance, and the relief fund set up by the General Guaranty Fund cover the risks of sickness, maternity, and death, while the special bonus fund administered by the General Guaranty Fund covers the old-age risk.

Transitional Provisions

CONSOLIDATION of the insurance funds and organizations carrying the various risks which have been constituted under the various French insurance laws is provided for when the financial condition of such funds is satisfactory, as is also the continuance or liquidation of insurance contracted for under the different types of insurance toward which the insured persons have contributed. The law provided that employers should file with the departmental or interdepartmental service before June 1, 1930, at the latest, an individual declaration covering all persons in their employment on May 15, 1930, who were subject to compulsory insurance and for whom no declaration had already been furnished.

Employees of the State, the departments, and communes, the railroads, street railways and other public utilities, miners and quarry workers, registered seamen and other maritime workers, and the personnel of national theaters, who are already insured in special funds, will be transferred to the new system within one year from the time the present law goes into effect. A special decree will fix the terms for the coordination of these different services.

General Regulations

PENSIONS up to a maximum of 2,400 francs are not transferable and can not be seized for debt except for the payment of the costs of hospitalization.

In computing the income tax, the amounts paid to the insurance fund are deducted from the total income by both employers and employees.

Insurance benefits are suspended during military service or in case of war.

Disputes arising in connection with the administration of the law are submitted, according to the nature of the dispute, to a cantonal commission, a technical medical commission, or to a departmental tripartite commission. Questions which arise in connection with the working of the law are referred by registered letter to a cantonal committee made up of the justice of the peace, an employer, and an insured person, assisted by the justice's clerk. During the first 15 days of each year the departmental or interdepartmental service will choose for each canton four employers and four insured persons, to serve during the year, three months each, on the said committee. The commission may order the parties to appear in person and after making every effort to conciliate them, if unsuccessful, will render a decision. Appeal is allowed from the decisions of the committee to the civil court.

Technical medical commissions consisting of three physicians chosen by the parties to the dispute and the justice of the peace will deal with disputes in connection with the benefits in kind of sickness insurance or the degree of invalidity. If it is a question of permanent incapacity the third doctor will be a medical referee appointed by the president of the civil court.

A departmental tripartite commission composed of an equal number of representatives of the insurance societies, of the professional associations, and the Ministries of Labor and Public Health is selected in each department. This commission decides questions arising in regard to the contracts concluded by societies and medical associations and hospitals and the scales of fees fixed by the societies. It also deals with difficulties, aside from those concerning the control of medical certification, which may arise between different services or within any one service. Its decisions may be appealed to the standing committee of the Superior Social Insurance Council.

Administration of Insurance Funds

THE administration of the social insurance system is in control of (1) unofficial primary funds which, with certain exceptions, operate within the department; (2) primary departmental or, exceptionally, interdepartmental funds. These funds operate for the covering of risks and payment of benefits. A primary fund may be formed by any mutual benefit society or insurance fund organized under the insurance laws of 1884, 1898, 1900, and 1910.

Insured persons who, three months before the present law became effective, belonged to a mutual benefit society operating under the provisions of the law of April 1, 1898, will be assumed to belong to the primary fund to which such an organization is attached unless notification is given not later than one month before the law becomes effective. The primary departmental fund has charge of all the benefit risks of persons not registered in any other primary fund.

Each primary and departmental fund is administered at the beginning by a provisional committee but within three months a general

meeting must be held to elect the permanent administrative committee. This committee must consist of at least 18 members, of whom at least half must be elected insured members, two practitioners chosen from a list submitted by the trade-unions, and (except in primary funds organized by the insured persons) at least six employers chosen by the employers.

Primary and departmental funds must be approved by the Minister of Labor, and this approval may be withdrawn in case of irregularities or when the fund does not function properly.

Departmental funds may transfer to the primary funds through the Government Deposit and Consignment Office the part of the fee for the special risks which these funds are authorized to cover. Primary funds may organize into regional unions and national federations for the purpose of establishing various services for the common welfare such as social hygiene, hospitals, sanatoriums, dispensaries, and convalescent and rest homes.

Insurance funds must open special accounts for the different types of risks covered.

Primary funds and the unions of these funds have a civil and juridical status and a special representative is appointed in legal cases. They function under the control of the State exercised through the Ministers of Labor and Finance.

The law creates a Superior Social Insurance Council which, under the chairmanship of the Minister of Labor, has general supervision of the administration of the act. The council will be composed of 61 members, including 18 representatives of insured persons, 5 representatives of employers, 2 hospital representatives, 2 representatives of medical associations, 1 representative each of dental, pharmacists', and midwives' associations, together with representatives of Parliament, the funds, and the administrative department concerned. The general supervision of the enforcement of the act will be under the present old-age pension inspection service of the Ministry of Labor.

The funds for the operation of the law are derived from the contributions of employers and workers, from the State subsidy, and from miscellaneous sources such as the appropriations of the savings effected in expenditure or public assistance by reason of the operation of the social insurance law, the duty paid to the State by the Bank of France, the gambling tax, and the proceeds of fines, gifts, legacies, etc. The funds which receive and disburse these sums include the General Guaranty Fund which is administered by a council of 20 members under the supervision of the Minister of Labor and has general supervision of the Augmentation and Solidarity Fund and the Guaranty and Equalization Fund. The Augmentation and Solidarity Fund guarantees the minimum legal pension for invalidity and old age, reimbursement for family expenses, and the expenses connected with the liquidation of the former retirement law, as well as administrative and management expenses. The Guaranty Fund is intended eventually to cover the annual deficits of the insurance funds and to guard against insolvency.

FAMILY ALLOWANCES

Tenth Annual Congress of French Family Allowance Funds

THE sessions of the Tenth National Congress of French Family Allowance Funds opened at Lille, France, on May 19, 1930. An account of these meetings is given in La Journée Industrielle (Paris).[1]

The report of progress presented by the director general of the central committee included the following figures:

STATISTICS OF FRENCH FAMILY ALLOWANCE FUNDS

[Conversion rate, one franc=3.92 cents]

Item	Reported at—		Increase
	1929 congress	1930 congress	
Number of funds	229	232	3
Number of employees covered by funds	1,740,000	1,820,000	80,000
Amount distributed in allowances	$11,446,400	$13,406,400	$1,960,000

If the figures for public administration and private undertakings paying family allowances outside of the compensation funds are added, the annual amount distributed, according to the report submitted to the 1930 congress was about $64,680,000 and the number of employees covered was 4,260,000—an increase of approximately $5,488,000 and 89,000 persons as compared with the report submitted at the previous congress.

Among other subjects taken up by the director were: The relative importance of industrial family allowances; workers' gardens and cheap dwellings; social services as a remedy for the declining birth rate; social-service centers; the economic and social education of the family through the Revue de la Famille, the official publication of the funds; and family allowances in other countries. In concluding his report the director called attention to two suggested schemes upon which there is considerable differences of opinion: (1) The consolidation of family allowances into a general system through legal compulsion and (2) the incorporation of family allowances in the social insurance system. An objection to the latter scheme, according to the speaker, is that one can not conceive of an insurance borne only by those who receive no benefits, and the workers do not seem to be prepared to establish mass support for the risk of family responsibilities which are the lot of a diminishing minority. He himself was of the opinion, however, that a general system of family allowances, by bringing about a more equitable distribution of wages, would offer a happy solution to the problem of industrial relations.

A report on the influence of family allowance funds on population was a feature of the program.

[1] Issues of May 20, 21, 22, and 25–26, and June 1–2, 1930.

The following resolution was unanimously adopted:

In view of the continued development of the family allowance funds and their new progress;

In view, particularly of the results which confirm the efficacy of the means that such funds have taken to raise the birth rate and to decrease stillbirths as well as infant mortality; and

In view of the fact that the social insurance law does not provide assistance in family responsibilities except in a very secondary way and under an extremely restricted form and that in particular it includes no compensation for the expenses of maintaining children during the active life of the head of the family: Be it

Resolved, That without allowing themselves to be turned aside by the evolution of social legislation the family allowance funds endeavor to recruit new adherents and to develop their social services, and

That such funds make a more and more extended appeal to the corps of social workers who will find in the putting into effect of social insurance (maternity and sickness) a new field of action for their beneficent intervention.

Another resolution favored the promotion of cheaper housing for wage earners benefiting under family allowance funds.

Arrangements were made for a special agricultural day for discussions by representatives of the Chamber of Agriculture and other agricultural associations. The president of the National Federation of Agricultural Family Allowance Funds presided on this occasion.

Recent British Reports on Family Allowances

THE Family Endowment Society, London, recently presented a memorandum to the British Royal Commission on the Civil Service (1929–30).[1] This was offered in accordance with the purposes of the society "to collect, investigate, and disseminate information and to take action with a view to bringing about as quickly as possible a more adequate system of making provision for children." Among the subjects covered in the memorandum are general standards and family allowances, equal pay and family allowances, family allowances in practice in the civil service of various countries, and objections to family allowances.

In concluding its report the committee declares that it proposes family allowances as a necessary corollary of "equal pay." The institution of such grants is also recommended as a partial solution of the economic problems of married persons in the lowest salary grades and as a practical improvement of the existing method of making provision for the family units in general. Under the method now used, the family's opportunities for a fuller life are often restricted both in the low-paid grades and among higher salaried employees where expenses for education are comparatively heavy. The object of family allowances is to ease the burden of parenthood for the average man at the time when such burden is heaviest. The committee emphasizes that the popularity of a service is determined not by a few fortunate ones but by the contentment of the average man, and therefore the proposal for family allowances should appeal to all those who are deeply concerned with the interests of the civil service as a whole and to all who hold that State service should be a model for other kinds of employment.

[1] Great Britain. Royal Commission on the Civil Service (1929–30). Minutes of Evidence, Appendix IV: Memorandum on Family Allowances, presented by the Family Endowment Society, January, 1930. London, 1930.

Report of British Joint Labor Committee on Family Allowances

A JOINT committee on the living wage, representing the British Trades-Union Congress and the Labor Party, recently issued an interim report on family allowances, in which, however, no recommendations were made. The committee afterward resumed its investigations and presented a majority and a minority report, the majority proposal being favored by the executive of the Labor Party and the minority scheme being accepted by the general council of the Trades-Union Congress. The principal recommendations of the majority report, as published in the Canadian Labor Gazette of July, 1930, are that family allowances be paid out of public funds for each child from birth to the school-leaving age (in respect of whom income tax rebate is not obtainable); and that they be paid direct to the mother, or appropriate guardian, at the rate of 5s. per week for the first child and 3s. per week for each successive child.

The signers of the minority report take the position that before making any decision on family allowances full provision should be made from public funds for (*a*) a complete medical service, both preventive and remedial, for all children up to the school-leaving age; (*b*) prenatal and postnatal maternity care and a cash payment for every child until it is one or two years of age; (*c*) raising the age at which children may leave school and an adequate maintenance allowance during the additional school period; (*d*) nursery schools for children under the admission age to elementary schools; (*e*) adequate health centers; and (*f*) furnishing pure milk and eliminating tuberculosis.

According to the minority report, it is urgent that additional funds be provided for the improvement of the health, education, and general welfare of the child. The signers maintain that, with the available funds, far more valuable results could be secured along these lines in developing social services than by grants in cash. A weekly allowance of 5s. ($1.22), for example, would not make it possible for a slum family to get a decent house in a better neighborhood. Houses must be built and slums demolished. If the funds available are limited, the minority considers that these social services should come first in the interests of the children themselves and argues that with the small cash allowance no amount of maternal care can provide remedial measures, including possibly special treatment for sick children.

The interim report referred to above summarizes the family-allowance schemes in various countries, which are classified as follows:

1. The simple payment of allowances by single employers (it is stated that this system has been universally condemned as favoring the employment of single men).
2. The equalization fund or "pool" system whereby allowances are paid out of a pool or fund established by contributions from employers.
3. A national insurance scheme.
4. A national scheme financed out of taxation.
5. A national scheme financed by a levy on industry.

In the July, 1930, issue of the Canadian Labor Gazette, which digests these British labor reports, Canadian opinion is declared to be plainly divided on the subject of these grants. In a report on family allowances made to the Dominion House of Commons by the committee on industrial and international relations, which was adopted

by that body on June 6, 1929, it was stated that "as the proposal is new in Canada and requires more careful consideration, no immediate action shall be taken." [2] The Trades and Labor Congress of Canada at its annual convention in 1929, opposed a proposal for the introduction of a system of family allowances,[3] while the All-Canadian Congress of Labor the same year went on record as favoring State provisions for allowances to wage earners with two or more children.[4]

[2] See Labor Review, August, 1929, p. 94.
[3] See Labor Review, November, 1929, p. 66.
[4] See Canadian Labor Gazette, Ottawa, December, 1929, p. 1364.

LABOR ORGANIZATIONS AND CONGRESSES

The 1930 Convention of Locomotive Engineers

AT THE convention of the Brotherhood of Locomotive Engineers held in Cleveland June 2–July 24, 1930, the sentiment was unanimous that in future the labor concerns of the members must be the main consideration of the organization. It was also reported, in the issue of Labor for July 29, 1930, that the policies of the grand chief engineer and his associates in liquidating the financial interests of the brotherhood were approved by the convention.

Among the important decisions made at this triennial meeting were the following:

That the brotherhood cooperate with other organizations in matters of mutual interest, consistent with the preservation of craft independence.

That the grand chief be authorized to cooperate at the proper time with other train-service organizations to secure a reduction of hours, vacations with pay, away-from-home expenses, and other improvements of labor conditions; and

That the brotherhood executive be directed to request other engine and train service organizations to unite with the brotherhood to establish and maintain a 6-hour basic day for yardmen.[1]

Other important demands of the delegates were the elimination of excessively high tanks in yard service, power reverse gear on locomotives in yard, switching, local freight and mine service, and the equipment of all locomotives with side cab curtains. It was also decided that the organization should work to establish the principle of pensioning all railroad employees and for the application of the Adamson 8-hour law to electric railways engaged in interstate commerce.

International Labor Conference, June, 1930

THE fourteenth session of the International Labor Conference[2] was held in Geneva, June 10–28, with delegates present from 51 of the 55 countries which are members of the International Labor Organization.

The agenda of the conference included three items: Forced labor, hours of work of salaried employees, and hours of work in coal mines. In regard to the question of forced labor, a draft convention was

[1] Locomotive Engineers Journal, Cleveland, July, 1930.
[2] International Labor Office. Industrial and Labor Information, Geneva, June 16 and July 7, 1930.

adopted embodying the suppression of the use of forced or compulsory labor in all its forms in the shortest possible period. The use of such labor for the benefit of private individuals, companies, or associations and in work underground in mines would be immediately prohibited, according to the terms of the convention, but during a transitional period and as an exceptional measure recourse might be had to forced labor for public purposes only. The question of final abolition would be considered after five years.

A draft convention was adopted providing for the limitation of the hours of work of persons employed in commercial establishments and offices to 8 per day and 48 per week, with the provision that the weekly maximum might be so arranged that in one or more days the hours worked might amount to 10. Recommendations were adopted, also, in favor of national inquiries into hours of work in hotels, restaurants, and similar establishments; theaters and other places of amusements; and hospitals and asylums, such establishments being excluded from the convention.

The question of limiting the hours of work of underground workers in coal mines failed to pass, either as a convention or a recommendation, and it was decided by a majority vote that it should be placed on the agenda of the next session of the conference. Various resolutions were passed, however, including one relating to safe working conditions in mines, another regulating the hours of surface workers as well as those of underground workers, and a third pointing out the need for an economic agreement among the coal-producing countries.

Membership of Labor Organizations in Canada, 1929

STATISTICS on trade-union membership in Canada at the close of the calendar year 1929, taken from the nineteenth annual report on labor organizations in the Dominion, are given below.

NUMBER AND MEMBERSHIP OF LABOR ORGANIZATIONS IN CANADA, 1929

Kind of organization	Branches		Members	
	Number	Increase or decrease as compared with 1928	Number	Increase or decrease as compared with 1928
International craft unions	1,953	+80	203,514	+16,597
One Big Union	43	−3	22,890	+2,861
Industrial Workers of the World	6	−1	3,975	−425
Canadian central labor organizations	639	+53	53,277	+1,419
Independent units	31	−5	10,820	−578
National Catholic Unions	106	+1	25,000	−1,000
Total	2,778	+125	319,476	+18,874

Of the 85 international craft organizations operating in the Dominion, 81 have established one or more branches there. The remaining 4 have no branches in Canada but their few members in that country are directly connected with central bodies. The following 13 inter-

national organizations have each a membership of more than 5,000 in Canada:

	Membership in Canada
United Mine Workers of America	17, 100
Brotherhood of Maintenance of Way Employees	16, 336
Brotherhood of Railway Carmen of America	15, 533
Brotherhood of Railroad Trainmen	15, 455
United Brotherhood of Carpenters and Joiners	10, 700
Amalgamated Association of Street and Electric Railway, Bus, and Coach Employees of America	10, 191
International Association of Machinists	8, 993
American Federation of Musicians	8, 000
Brotherhood of Locomotive Firemen and Enginemen	7, 786
Order of Railroad Telegraphers	7, 000
Amalgamated Clothing Workers of America	7, 000
Brotherhood of Locomotive Engineers	5, 637
Bricklayers, Masons and Plasterers' International Union of America	5, 360

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in July, 1930

DATA regarding industrial disputes in the United States for July, 1930, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in 1927, 1928, and 1929, number of workers involved and man-days lost for these years, the number of industrial disputes for each of the months—January, 1928, to July, 1930, inclusive—the number of disputes which began in these months, the number in effect at the end of each month, and the number of workers involved. It also shows, in the last column, the economic loss (in man-days) involved. The number of workdays lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working-days as normally worked by the industry or trade in question.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1928, TO JULY, 1930, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS 1927, 1928, AND 1929

Month and year	Number of disputes—		Number of workers involved in disputes—		Number of man-days lost during month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1927: Total	734	----------	349,434	----------	37,799,394
1928: Total	629	----------	357,145	----------	31,556,947
1929: Total	903	----------	230,463	----------	9,975,213
1928					
January	48	63	18,850	81,880	2,128,028
February	52	58	33,441	103,496	2,145,342
March	41	47	7,459	76,069	2,291,337
April	71	48	143,700	129,708	4,806,232
May	80	56	15,640	133,546	3,455,499
June	44	46	31,381	143,137	3,670,878
July	54	42	18,012	132,187	3,337,386
August	59	42	8,887	105,760	3,553,750
September	52	34	8,897	62,862	2,571,982
October	61	42	27,866	41,474	1,304,913
November	44	38	37,840	38,745	1,300,362
December	23	29	5,172	35,842	991,238
1929					
January	48	36	14,783	39,569	951,914
February	54	35	22,858	40,306	926,679
March	77	37	14,031	40,516	1,074,468
April	117	53	32,989	52,445	1,429,437
May	115	73	13,668	64,853	1,727,694
June	73	57	19,989	58,152	1,627,565
July	80	53	36,152	15,589	1,062,428
August	78	43	25,616	6,714	358,148
September	98	49	20,233	8,132	244,864
October	69	31	16,315	6,135	272,018
November	61	32	10,443	6,067	204,457
December	33	21	3,386	2,343	95,541
1930					
January	42	21	8,879	5,316	182,202
February	44	33	37,301	6,562	436,788
March	49	34	15,017	5,847	289,470
April	60	41	5,814	5,711	180,445
May	64	30	9,281	4,640	192,201
June[1]	50	34	13,600	8,562	150,142
July[1]	65	32	13,856	5,848	162,838

[1] Preliminary figures, subject to change.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives by industry the number of strikes beginning in May, June, and July, 1930, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN MAY, JUNE, AND JULY, 1930

Industry	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	May	June	July	May	June	July
Auto, carriage, and wagon workers		1			950	
Bakers	2			47		
Barbers	2	1	1	716	14	2,000
Brick and tile workers			1			125
Building trades	34	12	20	4,820	933	2,504
Car builders	1			30		
Chauffeurs and teamsters	9	3	2	2,201	298	115
Clerks, salesmen			1			800
Clothing	5	7	11	250	399	2,661
Electric and gas appliance workers			1			10
Fishermen			1			30
Food workers	1		1	14		20
Furniture	1			18		
Hospital workers			1			22
Hotel and restaurant workers			1			475
Iron and steel		1			24	
Light, heat, and power			1			40
Longshoremen, freight handlers			2			450
Lumber and timber	2			52		
Metal trades	1	3	2	50	154	570
Miners	1	10	9	700	10,150	3,316
Motion-picture operators, actors, and theater workers		1	1		18	42
Printing and publishing		4			88	
Stationary engineers and firemen			1			125
Stone	1		1	200		37
Street railway workers		1			16	
Municipal workers			1			225
Textile	4	5	6	183	542	289
Tobacco		1			14	
Total	64	50	65	9,281	13,600	13,856

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in July, 1930, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN JULY, 1930, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in July, 1930, involving—				
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers
Barbers					1
Brick and tile workers			1		
Building trades	4	5	11		
Chauffeurs and teamsters		2			
Clerks, salesmen				1	
Clothing	4	5	1		1
Electric and gas appliance workers	1				
Fishermen		1			
Food workers		1			
Hospital workers		1			
Hotel and restaurant workers			1		
Light, heat, and power		1			
Longshoremen, freight handlers			2		
Metal trades		1		1	
Miners		2	4	3	
Motion-picture operators, actors, and theater workers		1			
Stationary engineers and firemen			1		
Stone		1			
Municipal workers			1		
Textile	1	5			
Total	10	26	22	5	2

In Table 4 are shown the number of industrial disputes ending in July, 1930, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN JULY, 1930, BY INDUSTRIES AND BY CLASSIFIED DURATION

Industry	Classified duration of strikes ending in July				
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months	3 months and less than 4 months
Auto, carriage, and wagon workers	1				
Barbers	1				
Brick and tile workers	1				
Building trades	15	5	3	1	
Truck drivers	1	2			
Clerks, salesmen	1				
Clothing	5	3	1		
Hospital workers	1				
Longshoremen, freight handlers	1				
Lumber and timber			1		
Metal trades	2		1		
Miners	8	2			2
Stone	1				
Municipal workers	1				
Textile	2	2	1	1	
Tobacco		1			
Total	41	15	7	2	2

Principal Strikes and Lockouts Beginning in July, 1930

Metal workers, Pennsylvania.—An unsuccessful strike of 500 employees of the Columbiana Radiator Co. at McKeesport, against a wage reduction, is reported to have begun on July 1 and ended on July 11.

Bituminous coal miners, West Virginia.—Unsuccessful strikes against reduction of wages, affecting the Continental Coal Co. of Fairmont, began on July 1 at the company's Brock and Sands mines. The strike at the former involved 750 men and ended by July 10, while that at the latter involved 375 men and ended by July 19.

Retail clerks, Montana.—A strike-lockout of 800 retail clerks in Butte began on July 14 because of sympathy with 125 teamsters who struck on June 30 against a wage reduction of 25 cents and 50 cents per day. Some 83 automobile machinists had also struck on June 16 against a wage reduction of $1 per day. These strikes involved the Silver Bow Employers' Association. They ended unsuccessfully on July 19.

Anthracite coal miners, Pennsylvania.—Because of the discharge of four men, 700 miners at the Burnside Colliery of the Philadelphia & Reading Coal & Iron Co. are reported to have been on strike from July 15 to July 17. The discharged men were reinstated.

Cooks, waiters, and waitresses, Ohio.—A strike-lockout of cooks, waiters, and waitresses, affiliated with the Hotel and Restaurant Employees and Beverage Dispensers International Alliance, began on July 15 affecting some 15 hotels in Cleveland and outlying districts, members of the Cleveland Hotels Association (Inc.). The hotels declined to renew contracts with the affected local unions and

demanded individual "open shop" contracts. Approximately 475 workers are involved exclusive of some 125 stationary engineers who went out on July 16 either through sympathy or because of grievances of their own. The places of some of the old employees were filled by July 21.

Garment workers, Maryland.—Unable to reach a satisfactory agreement through negotiation, a strike of some 2,000 women's garment workers in approximately 24 Baltimore establishments was called by the International Ladies' Garment Workers' Union, effective July 23. The union demands included union recognition, elimination of sweatshops, establishment of a 40-hour, 5-day week at the end of two years, a minimum wage scale and the creation of an arbitration committee. Eleven of the manufacturers, represented by the newly formed Cloak Manufacturers' Association of Baltimore City, were favorable to some if not all of these demands but insisted upon the right to the seasonal reorganization of their forces, which the union was unwilling to concede. However, an agreement for three years was effected with this group of manufacturers on July 29, applicable to about 1,000 workers. This agreement, according to press reports, represents concessions by both sides, and calls for recognition of the union, 44 hours per week during the first year, 42 hours the second year and 40 hours the third year. A substitution for the controverted clause was accepted, allowing employers the right to discharge workers subject to a prescribed procedure. Within a few days following the signing of this agreement other manufacturers signed up with the union so that by August 4 the strike, it is understood, was practically over. A few nonunion shops declined to sign the agreement.

Barbers, New York City.—A brief and successful strike of 2,000 barbers on the West Side, between Fifty-ninth and Two hundred and forty-second Streets, began on July 30 and ended on the following day, 600 shops being involved. As reported, this strike was undertaken to organize the employees in the independent shops and to improve working conditions, bringing them into line with other districts in the city. The settlement permits Saturday closing at 9 p. m. instead of 10 p. m., holiday closing at 1 p. m. and all day off on New Year's Day, Labor Day, and Christmas.

In this so-called friendly strike the barbers were represented by the Journeymen Barbers' International Union and the master barbers by the Master Barbers' Association.

Principal Strikes and Lockouts Continuing into July, 1930

NONE of the strikes commented upon in this column in previous issues of the Labor Review remains in effect.

Conciliation Work of the Department of Labor in July, 1930

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 42 labor disputes during July, 1930. These disputes affected a known total of 26,574 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the draft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On August 1, 1930, there were 32 strikes before the department for settlement and in addition 17 controversies which had not reached the strike stage. The total number of cases pending was 49.

LABOR DISPUTES HANDLED DURING THE MONTH OF JULY, 1930

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Engineers and brewery workers, Spokane, Wash.	Controversy	Engineers and brewery workers.	Asked 50 cents per day increase for engineers.	Pending	1928 June 1	1930	24	50
Susquehanna Coal Co., Glen Lyon, Pa.	Strike	Miners	1 discharged	Adjusted, returned to work; local officials to fix terms.	1930 July 1	July 3	1,300	25
National Broadcasting Studio Building, Chicago, Ill.	do	Electricians	Wages and union conditions	Pending, returned to work; investigations before definite settlement.	June 20		10	45
Century Shoe Co., Brooklyn, N.Y.	do	Shoe workers	Asked recognition of new union	Adjusted; injunction to restrain alleged communist interference with working conditions.	July 1	July 15	36	36
McKeesport Coal & Coke Co., McKeesport, Pa.	do	Miners	Wages cut 10 per cent	Adjusted, returned; increase later when business warrants.	do	July 10	250	500
Columbiana Radiator Co., McKeesport, Pa.	do	Metal workers	Wages cut	Adjusted; accepted cut and returned to work.	do	July 11	500	1,200
Building, Reading, Pa.	do	Plumbers and steam fitters	Objection to nonunion workers	Adjusted; union plumbers employed	do	July 8	8	10
Lathers, Washington, D. C.	do	Lathers	Asked $1 per day increase July 1, and $1 on Oct. 1, 1930.	Pending	do		60	
Paramount Theater Building, Middletown, N. Y.	do	Carpenters and sheet-metal workers.	Failure to receive pay; contracting company in bankruptcy.	do	July 3		24	
Selden & Naviasky, Baltimore, Md.	do	Dress and coat makers.	2 discharged for alleged union activities.	Unclassified; reinstatement of workers and union recognition before commissioner's arrival.	July 8	July 12	60	
Teamsters, Butte, Mont.	do	Teamsters	Wages cut 25 to 50 cents per day.	Adjusted; accepted 50-cent cut for higher classifications and 25-cent cut for lower; union recognized.	June 30	July 19	125	
Platers' Association, St. Louis, Mo.	Controversy	Platers	Wages cut 10 cents per hour	Unable to adjust	July 14	July 21	24	
Continental Coal Co., Fairmont, W. Va.	Strike	Miners	Wages of loaders, drivers, and cutters reduced.	Adjusted; returned	July 1	July 19	375	
Plumbers, Columbus, Ohio	do	Plumbers	Wages cut $1 per day	Adjusted; accepted wage cut	July 16	July 18	150	
Shell Oil Co., California	Controversy	Oil workers	Annual wage conference, not a dispute.	Adjusted; new memorandum of terms concluded.	July 1	July 9	5,000	3,000
Delaware River, Philadelphia, Pa.	Strike	Stevedores	Alleged communist agitation	Strike lost	July 10	July 17	200	
Paving companies, Chicago, Ill.	do	Street laborers, pavers, and asphalt workers.	Jurisdiction of street labor, paving, and asphalt work.	Adjusted; asphalt workers affiliated with street laborers' union and work was resumed.	July 11	July 21	200	40
Du Pont Building, Wilmington, Del.	Threatened strike.	Building crafts	Objection to nonunion workers	Adjusted, strike averted; conditions more satisfactory.	July 16	July 25	80	
S. Kulok, clothier, New York City.	Strike	Clothing workers	Working conditions	Pending	June 30		28	20
	Lockout	Cooks, waiters, and	Management refused to renew	do	July 15		475	

Hollender, Statler, and Allerton Hotels, etc., Cleveland, Ohio.	Lockout	Cooks, waiters, and waitresses.	Management refused to renew union agreements.	do	July 15		475	
Edw. Hines, Jr., Hospital, Chicago, Ill.	Controversy	Laborers and bricklayers.	Nonunion men employed	do	July 9		10	
Primrose Tapestry Co., Philadelphia, Pa.	Strike	Weavers	Wages cut 20 per cent	do	July 10		12	38
Virginia & Pittsburgh Coal Co., Fairmont, W. Va.	do	Miners	Wages cut; asked restoration	Adjusted, returned; conditions more satisfactory.	July 11	July 23	175	30
Clerks, Butte, Mont	do	Retail clerks	Sympathy with teamsters on strike.	Adjusted, returned; union agreement to Oct. 1, 1931; 6-day week with weekly half holiday 3 months in year.	July 14	July 19	800	57
Auto mechanics, Butte, Mont	do	Auto mechanics	Reduction of $1 per day	Adjusted; accepted $1 per day wage cut.	June 16	do	83	
Ebbw Mine, near Sullivan, Ind	do	Miners	Objection to operation of new machinery.	Pending	July 18		100	
Electricians, Summit, Morristown, Dover, Madison, and other towns, N. J.	do	Electricians	Asked increase of $2 per day	Adjusted; allowed increase of $1.20 per day.	July 2	July 22	120	
Building, Detroit, Mich	Threatened strike.	Carpenters	Wages cut 15 cents per hour	Pending	July 21		26	3,200
Astabula Fish Co., Astabula, Ohio	Lockout	Fishermen	Wage cut $1 per day	Adjusted; accepted wage cut; 10-hour instead of 11-hour day.	July 23	Aug. 2	30	300
Franklinshire Worsted Mills, Philadelphia, Pa.	Strike	Warpers	Asked 44-hour week with same pay as 55-hour week.	Pending	July 22		4	160
Keystone State Corporation, Philadelphia, Pa.	do	Building trades	Employment of union cement finishers on Pennsylvania R. R. station.	Adjusted; union given jurisdiction over all work in station area; other demands waived.	July 16	July 24	284	40
Garbage collectors, Schenectady, N. Y.	do	Garbage collectors	Discharge of 6 union men	Adjusted; union men reinstated	July 17	July 20	225	
Coat and dress makers, Baltimore, Md.	do	Garment makers	Asked 40-hour week and minimum wage scale.	Adjusted; allowed 44-hour week; 42-hour week in 1931 and 40 in 1932; price committee allowed.	July 23	Aug. 4	2,000	
Kendig Clothing Co., Lansdale, Pa.	do	do	Objection to series of wage cuts	Adjusted; some workers returned, others may return as needed.	July 7	July 26	23	32
Raincoat makers, Boston, Mass	do	Raincoat makers	Wages and working conditions	Pending	July 25		90	150
First National Bank, Scranton, Pa.	Threatened strike.	Structural-iron workers.	Asked union conditions and union wages.	do	July 24		(1)	
City Hall, Schenectady, N. Y.	Strike	Brick masons and electricians.	Jurisdiction of cutting chases	Adjusted; agreed not to cut chases until unions fix jurisdiction.	July 10	July 29	105	
Booth Flinn Construction Co., Pittsburgh, Pa.	do	Hoisting engineers	Sympathy with strikers in Rochester, N. Y.	Pending	July 29		35	
Lettuce fields, Santa Maria, Calif.	do	Packers and trimmers.	Proposed 10 per cent wage cut	Adjusted; agreed on standard wage scale, returned without cut.	July 28	July 30	300	500
Barbers, Chicago, Ill	Controversy	Barbers	Proposed wage cut	Pending	July 31		3,000	400
Merrill Cannery, Wineville, Calif.	Strike	Cannery workers	Asked increase	Unclassified; places filled by others before commissioner's arrival.	July 17	July 21	200	100
Watsnitzer Hat Co., Nutley, N. J.	do	Hat makers	Organization of factory	Pending	July 29		70	20
Total							16,621	9,953

[1] Not reported.

End of Dispute in English Wool-Textile Industry

IN THE Labor Review for May, 1930 (p. 170), an account was given of the circumstances leading up to the stoppage in the wool-textile industry in England, which commenced during the week ended April 12. Various efforts were made by third parties, including the Minister of Labor, to bring the two sides together, but without effect. According to the Ministry of Labor Gazette for July, 1930, the executive committees of the trade-unions concerned decided on June 4 that any union should be free to negotiate a settlement for itself on terms more favorable than those of the Macmillan report, even though they involved a reduction of more than 5.8 per cent in wages. Following this a number of unions declared the dispute at an end so far as their members were concerned and during June the operatives resumed work in increasing numbers. There was, however, no united action, and it was not until July 16 that the Manchester Guardian announced that the power-loom overseers, the last of the unionists to submit to the terms of the employers' federations, had voted to return. Some of the unions, according to the Manchester Guardian, had secured more favorable terms than those recommended by the Macmillan report, "but in no case has an employers' federation accepted lesser reductions in wages, as a condition of the return of these workers, than those recommended."

In the Rochdale district, where the rates paid for given occupations are in some cases different from those prevailing in the West Riding of Yorkshire, notices of reduction were also posted in April, and were followed by a stoppage, as in the West Riding, but after negotiations between the organizations of employers and workers concerned, a settlement was reached.

Under this settlement, work was resumed at the rates prevailing before the notices of reduction were posted, and a joint committee was set up to examine into the West Riding rates and to prepare a schedule of average rates for similar work prevailing in the West Riding. This schedule was to be proceeded with forthwith, but if necessary is to be revised to show the rates prevailing on August 30, 1930, after which date the rates set out in the schedule are to become operative. In the event of the committee failing to agree as to the facts of the rates paid in the West Riding, the evidence obtained is to be placed before a person appointed by the Minister of Labor, who will decide, if necessary after making further independent inquiries, what rate should be inserted in the schedule for any occupation.

LABOR AGREEMENTS

Unemployment Insurance Provided for in National Agreement of Full-Fashioned Hosiery Workers

THE Full-Fashioned Hosiery Manufacturers of America and the American Federation of Full-Fashioned Hosiery Workers negotiated a new national agreement, effective August 1, 1930, to take the place of the national agreement which expired September 1, 1930.

One of the most interesting features of the new agreement is the creation of an unemployment fund. By the terms of the agreement each member of the association will contribute to the fund a sum equal to 1 per cent of the weekly wages paid to such workers in the member's factory as are covered by the agreement; the contributions of the members of the association begin on August 1, 1930. Beginning September 1, 1931, the employees will contribute an amount equal to one-half of the sum contributed by the members of the association, their contributions being deducted from their wages.

Another interesting feature of this agreement is the provision that no worker may be taken into the union unless there is a job for him, and it is further provided that in order to enforce this provision the impartial chairman is to be furnished a list of the present membership of the union.

A joint employment bureau is to be established.

The agreement calls for a reduction in the piece rates of from 15 per cent to 22 per cent, and for the two-machine system of operation, but provides "No employer shall discharge knitters now operating single machines solely for the purpose of taking advantage of the reduced rates affecting the two-machine system of operation."

In order to cover any assessment or penalty which may be imposed by the impartial chairman for any breach of the agreement, each party to the agreement agrees to give a surety bond in the sum of $10,000.

The agreement is effective to August 31, 1931, and automatically renews itself from year to year. Either party desiring to terminate the agreement at the end of any yearly period must give to other party 60 days' written notice.

New Agreement in the Anthracite Mining Industry

THE new anthracite agreement, between the anthracite operators and Districts 1, 7, and 9 of the United Mine Workers of America, becomes effective September 1, 1930, and ends April 1, 1936. It provides for the maintenance of the present wage rates and conditions, and the establishment of the check-off in a modified form.

The terms of the agreement as published in the United Mine Workers Journal of August 1, 1930, are as follows:

(1) The provisions of said agreement of February 17, 1926, except as hereinafter modified and amended, shall be in force and effect for the period beginning September 1, 1930, and ending April 1, 1936.

(2) Except as modified or more specifically provided herein, the terms and provisions of the award of the Anthracite Coal Strike Commission and subsequent agreements made in modification thereof or supplemental thereto, as well as the rulings and decisions of the Board of Conciliation, are hereby ratified, confirmed, and continued for and during the full term of this contract, beginning September 1, 1930, and ending April 1, 1936.

(3) The principle of paying employees by check is recognized in communities having banking facilities reasonably accessible and the mine workers agree to make local agreements permitting such practice where practicable and reasonable.

(4) The mine workers have requested the operators to assist them in the collection of union dues, stating that such assistance will not only be an accommodation to them but will substantially lessen their cost of operation as an organization. The mine workers have also stated their desire and intention to take active and affirmative steps to eliminate, as far as possible, strikes and shut-downs in violation of this agreement; to eliminate group action designed to restrict output; to restrict general mine committees to their constitutional functions within the union, recognizing that such committees have no power under this agreement; to cooperate with the operators for the promotion of efficiency and the production of an improved car of coal, with the understanding that existing practices and payments covering refuse shall be continued; and to make effective all the terms and provisions of this contract. With these requests and declarations in mind, and in consideration thereof and conditioned upon the full, complete, and continuing performance thereof to the mutual satisfaction of the contracting parties, the operators agree as follows:

The parties of the second part, upon request of any employee, will receive from such employee on pay day, at a point convenient to the pay office, and transmit to the district treasurer of the United Mine Workers of America, an amount not in excess of $1 per month. The operators shall be under no obligation to solicit or compel contributions, but shall fulfill their entire obligation hereunder when they receive and transmit the foregoing payments, as and when tendered by the employee. It is understood that payments shall not be tendered or received more than once in any month, and that the operator will provide some suitable record of payments, showing from whom received.

(5) The parties agree to promptly form a permanent committee of 12 men to serve and function during the period of this agreement. The membership of said committee shall be as follows: Six officials of the United Mine Workers of America, to wit, the president, vice president, secretary-treasurer, and the presidents of Districts 1, 7, and 9; six officials of the operating companies to be duly appointed by the operating companies, and one of which operating company officials shall be designated by the operating companies to act as chairman of said committee of 12, with the right to vote.

The operators shall determine their own personnel on said committee and shall fill such vacancies as may occur.

As soon as convenient after the ratification of this agreement, the members hereinbefore specified shall meet and organize in permanent form said committee of 12.

The committee shall meet from time to time on call of the chairman, either at the discretion of the chairman or on written request of any five members of the committee.

The committee shall consider and discuss all questions arising under this contract relating to cooperation and efficiency and performance of the contract by the parties and the relations of the parties which either party may present for consideration and discussion.

The committee may employ such skilled and expert assistance from time to time as the committee shall deem advisable in order that the committee may be informed and advised as to any acts or information which the committee may desire to have determined.

All expenses of the committee shall be paid one-half by each party hereto.

HOUSING

Building Operations in Principal Cities, July, 1930

THE Bureau of Labor Statistics of the United States Department of Labor has received building permit reports from 288 comparable cities of the United States having a population of 25,000 or over for the months of June and July. The reports cover the corporate limits of the cities enumerated, and the costs shown in the tables are for building operations in the corporate limits of these cities. The figures cover the erection costs only; no land costs are included. The States of Illinois, Massachusetts, New Jersey, New York, and Pennsylvania, through their departments of labor, are cooperating with the Bureau of Labor Statistics in the collection of this information.

Table 1 shows the estimated cost of new residential buildings, new nonresidential buildings, and total building operations in the 288 cities of the United States, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL BUILDING OPERATIONS IN 288 CITIES OF THE UNITED STATES HAVING A POPULATION OF 25,000 OR OVER, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings				New nonresidential buildings, estimated cost		Total construction (including alterations and repairs), estimated cost	
	Estimated cost		Families provided for in new dwelling houses					
	June, 1930	July, 1930	June, 1930	July, 1930	June, 1930	July, 1930	June, 1930	July, 1930
New England	$3,669,370	$3,825,865	585	643	$7,440,889	$6,856,949	$13,858,686	$13,926,103
Middle Atlantic	21,161,300	24,415,922	4,415	4,115	32,001,829	39,020,900	62,453,338	72,244,188
East North Central	12,427,530	7,438,287	1,759	1,548	18,085,022	15,741,018	34,432,354	29,358,413
West North Central	2,024,405	2,988,648	565	568	8,193,116	5,144,107	12,290,850	9,492,172
South Atlantic	3,491,135	2,683,855	711	541	4,199,657	5,586,404	9,641,721	10,172,407
South Central	3,516,752	3,799,613	1,172	994	4,793,808	7,444,780	9,591,875	12,676,553
Mountain and Pacific	7,286,851	7,222,958	2,080	1,952	7,260,486	6,365,950	17,878,465	16,198,127
Total	53,577,343	52,375,148	11,287	10,361	81,974,807	86,160,108	160,147,289	164,067,963
Per cent of change		−2.2		−8.2		+5.1		+2.4

There was an *increase of 2.4 per cent* in the indicated expenditures for all building operations in these 288 cities. Total expenditures for building operations during the month of July was $164,067,963, compared with $160,147,289 during the month of June. Residential building decreased 2.2 per cent, while nonresidential building increased 5.1 per cent. Dwelling places in new buildings were provided for 10,361 families during the month of July. This is a reduction of 8.2 per cent from the 11,287 families provided for during the month of June.

Increases in total building operations were registered in the New England, Middle Atlantic, South Atlantic, and South Central States. Decreases were shown in the East North Central, West North Central, and Mountain and Pacific States.

Increases in nonresidential building were shown in the Middle Atlantic States, South Atlantic States, and the South Central States. In the other geographic divisions there were decreases in new nonresidential building.

Permits issued for residential buildings indicated an increase in expenditures for this type of building in the New England States, Middle Atlantic States, West North Central States, and the South Central States. Decreases were indicated in the East North Central States, the South Atlantic States, and the Mountain and Pacific States.

More new dwelling places were erected in the New England States and the West North Central States in July than in June. The other five geographic divisions showed decreases in the number of new family dwelling units provided.

It will be noted that the largest increase in total building operations was shown in the Middle Atlantic States. This was largely caused by the great increase in building in the Borough of Manhattan. Permits issued in that borough indicate an expenditure of more than $36,000,000 during the month of July, compared with $16,000,000 during the month of June.

Table 2 shows the estimated cost of additions, alterations, and repairs as shown by permits issued, together with the percentage of increases or decreases in July, as compared with June, by geographic divisions.

TABLE 2.—ESTIMATED COST OF ADDITIONS, ALTERATIONS, AND REPAIRS IN CITIES OF THE UNITED STATES HAVING A POPULATION OF 25,000 OR OVER, BY GEOGRAPHIC DIVISIONS

Geographic division	Estimated cost		Per cent of increase or decrease, July compared with June
	June, 1930	July, 1930	
New England	$2,748,427	$3,243,289	+18.0
Middle Atlantic	9,290,209	8,807,366	−5.2
East North Central	3,919,802	6,179,108	+57.6
West North Central	2,073,329	1,359,417	−34.4
South Atlantic	1,950,929	1,902,148	−2.5
South Central	1,281,315	1,432,160	+11.8
Mountain and Pacific	3,331,128	2,609,219	−21.7
Total	24,595,139	25,532,707	+3.8

During the month of July permits were issued for repairs and alterations to old buildings in the 288 cities to cost $25,532,707. This is an increase of 3.8 per cent over the indicated expenditures for repairs according to permits issued in these cities during June. There was an increase in estimated cost of repairs in the New England district, in the East North Central district, and in the South Central district. The increases ranged from 11.8 to 57.6 per cent. The other four districts showed decreases in this class of building, ranging from 2.5 per cent in the South Atlantic division to 34.4 per cent in the West North Central division.

Table 3 shows index numbers of families provided for and index numbers of indicated expenditures for residential buildings, for nonresidential buildings, for alterations and repairs, and for total building

operations. These indexes are worked on the chain system with the monthly average of 1929 equaling 100.

TABLE 3.—INDEX NUMBER OF FAMILIES PROVIDED FOR; ESTIMATED COSTS OF NEW RESIDENTIAL BUILDINGS; NEW NONRESIDENTIAL BUILDINGS; ALTERATIONS AND REPAIRS; AND TOTAL BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN CITIES OF THE UNITED STATES HAVING A POPULATION OF 25,000 OR OVER (MONTHLY AVERAGE 1929=100)

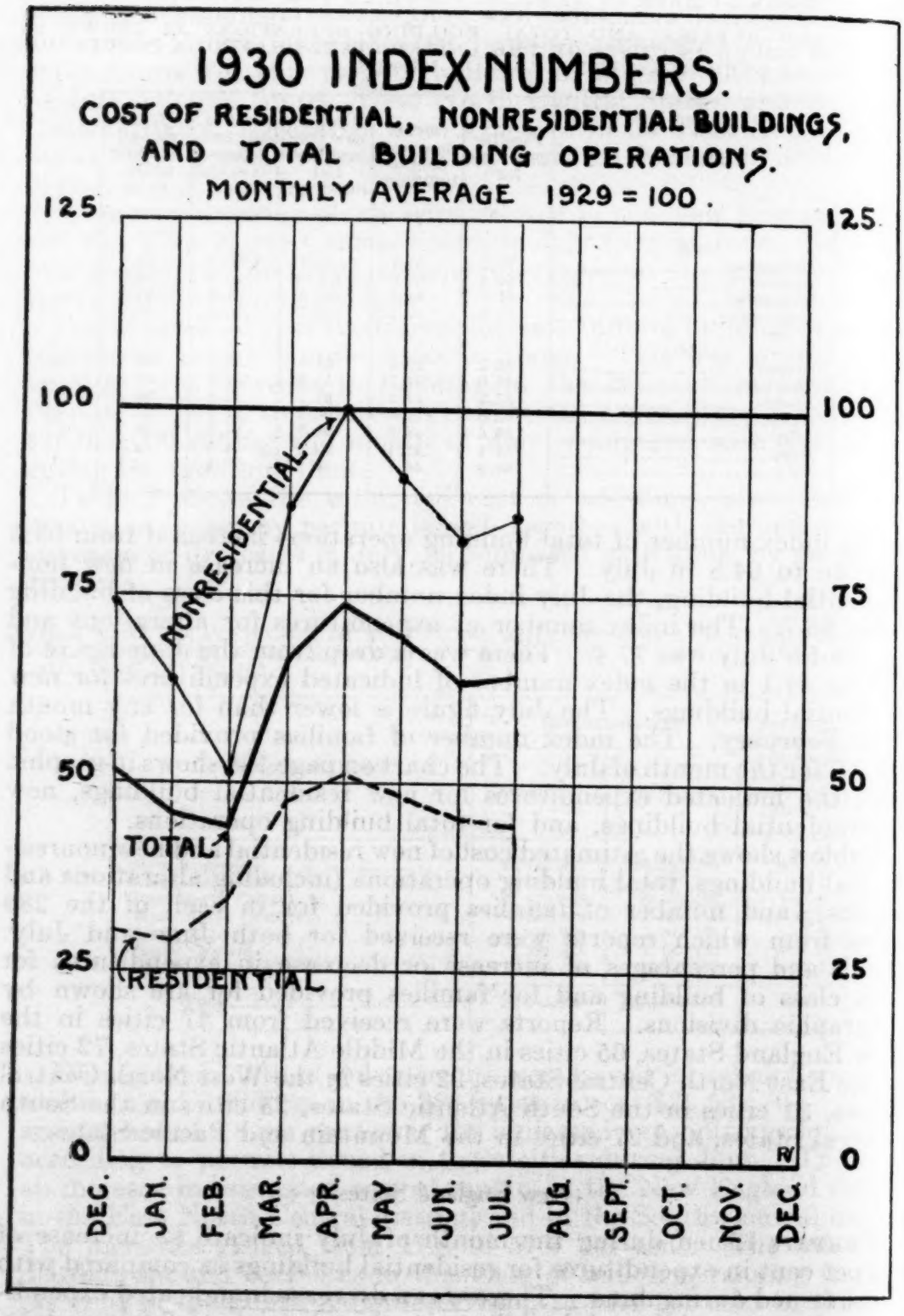
Month	Families provided for	Cost of new residential buildings	Cost of new nonresidential buildings	Cost of additions, alterations, and repairs	Total cost all building operations
1929					
September	70.2	63.7	81.3	95.0	73.7
October	64.4	61.6	107.9	115.2	85.7
November	51.7	44.8	89.6	95.2	68.1
December	35.9	30.2	74.3	66.1	51.7
1930					
January	34.2	29.4	64.3	55.1	46.1
February	43.0	34.7	51.8	57.5	44.1
March	57.1	47.2	87.1	77.5	66.4
April	62.0	51.0	100.1	81.8	73.8
May	59.6	48.5	90.7	84.5	69.3
June	54.4	45.1	82.5	74.6	63.3
July	49.9	44.1	86.7	77.4	64.8

The index number of total building operations increased from 63.3 in June to 64.8 in July. There was also an increase in new nonresidential building, the July index number for this class of building being 86.7. The index number of expenditures for alterations and repairs for July was 77.4. There was a drop from the June figure of 45.1 to 44.1 in the index number of indicated expenditures for new residential buildings. The July figure is lower than for any month since February. The index number of families provided for stood at 49.9 for the month of July. The chart on page 108 shows in graphic form the indicated expenditures for new residential buildings, new nonresidential buildings, and for total building operations.

Table 4 shows the estimated cost of new residential and new nonresidential buildings, total building operations (including alterations and repairs), and number of families provided for in each of the 288 cities from which reports were received for both June and July. Totals and percentages of increase or decrease in expenditures for each class of building and for families provided for are shown by geographic divisions. Reports were received from 47 cities in the New England States, 65 cities in the Middle Atlantic States, 72 cities in the East North Central States, 22 cities in the West North Central States, 31 cities in the South Atlantic States, 23 cities in the South Central States, and 27 cities in the Mountain and Pacific States.

New England States

PERMITS issued during the month of July indicate an increase of 4.3 per cent in expenditures for residential buildings as compared with those issued during June. There was a decrease in indicated expenditures for nonresidential buildings in this district of 7.9 per cent. Total building operations registered an increase of 0.5 per cent in indicated expenditures. The number of family dwelling units provided in new buildings increased 9.9 per cent.


1930 INDEX NUMBERS.
COST OF RESIDENTIAL, NONRESIDENTIAL BUILDINGS, AND TOTAL BUILDING OPERATIONS.
MONTHLY AVERAGE 1929 = 100.
125
100
75
50
25
0
NONRESIDENTIAL
TOTAL
RESIDENTIAL
DEC.
JAN.
FEB.
MAR.
APR.
MAY
JUN.
JUL.
AUG.
SEPT.
OCT.
NOV.
DEC.

Large increases in total building operations were indicated in Boston, Brookline, Cambridge, Worcester, and Providence. Decreases in total building expenditures were indicated in Hartford, Portland, Newton, and Newport.

In Boston, the New England metropolis, a permit was issued for an office building to cost $1,200,000. Permits were issued in Brookline for two large apartment houses to cost $700,000. In Cambridge three school buildings were to be erected at a cost of over $700,000. In Lowell the Supervising Architect of the Treasury Department issued a contract for a post-office building to cost over $350,000. In Worcester a new post-office and Federal court building was to be erected at a cost of $675,000. A permit was also issued in Worcester for a high-school gymnasium and class-room building to cost $450,000. In Providence a permit was issued for a new public-school building to cost $1,100,000.

No reports were received from Bridgeport and New London, Conn.

Middle Atlantic States

THE estimated cost of building operations in the Middle Atlantic States for the month of July was greater than the estimated cost of operations in any of the other geographic divisions.

In this division there was an increase of 15.7 per cent in total building operations, comparing July permits with those issued during the month of June. The estimated cost of new residential buildings increased 15.4 per cent and of new nonresidential buildings 21.9 per cent. Families provided for in new dwellings decreased 6.8 per cent. Large increases in total building operations were shown in Jersey City, Elmira, the Borough of Manhattan, and York. Decreases were registered in Perth Amboy, Trenton, Brooklyn, Philadelphia, and Pittsburgh. The increase in the Borough of Manhattan was over $20,000,000. A permit was issued during July in Jersey City for a building to be used as a public works to cost over $1,250,000. In Newark permits were issued for two public-school buildings to cost $1,000,000; in Amsterdam for two public-school buildings to cost nearly $750,000. Permits were issued in the Borough of the Bronx for 14 apartment houses to cost over $2,500,000. In Brooklyn a hotel was to be erected at a cost of $500,000. In the Borough of Manhattan plans were filed for four office buildings to cost over $15,500,000; for a hotel to cost $3,250,000; and for six factory buildings to cost nearly $5,000,000. In Philadelphia a permit was issued for a motion-picture house to cost $560,000, and for a public building to cost $200,000. No report was received from Reading, Pa.

East North Central States

COMPARING permits issued during July in the East North Central States with those issued during June, there was a decrease of 14.7 per cent in total building operations.

Residential buildings decreased 40.2 per cent and nonresidential buildings 13 per cent. The number of families provided for in new dwelling houses during the month of July was 12 per cent less than those provided for during the month of June. Although there was a

decrease in total building operations in this district, a number of cities showed large increases. Among these were Chicago, Milwaukee, and Dayton.

Large decreases in total building operations were shown in Indianapolis, Detroit, Cleveland, Columbus, and Racine. In Chicago permits were issued for factory buildings to cost nearly $3,000,000; for a school building to cost nearly $500,000, and a public utilities building to cost $700,000. In Detroit permits were issued for school buildings to cost $820,000. In Cincinnati an office building was to be erected to cost $750,000. In Milwaukee permits were issued for an amusement building to cost over $900,000.

No reports were received from Anderson and South Bend, Ind.; Battle Creek and Port Huron, Mich.; and Zanesville, Ohio.

West North Central States

THERE was an increase of 47.6 per cent in residential buildings in the West North Central States, comparing July permits with those issued in June. Nonresidential buildings, however, decreased 37.2 per cent and total building operations decreased 22.8 per cent. There was an increase of 0.5 per cent in the number of family dwelling units provided in new buildings. Increases in total building operations were shown in Burlington, Dubuque, Duluth, and Kansas City, Mo. Decreases were shown in Des Moines, Wichita, St. Paul, and St. Louis. A permit was issued for a new department-store building in Dubuque, Iowa, to cost $355,000. In St. Paul plans were filed for a hotel building to cost over $700,000. In Kansas City, Mo., two public school buildings were to be erected at a cost of over $1,800,000. In Duluth permits were issued for a store building to cost nearly $600,000. No reports were received for Hutchinson, Kans., and Springfield, Mo.

South Atlantic States

COMPARING permits issued during the month of July with those issued during the month of June in the South Atlantic States it is seen that there was a decrease in residential buildings of 23.1 per cent, but an increase in nonresidential buildings of 33.0 per cent. Total building operations in this district increased 5.5 per cent. The number of families to be housed in new residential buildings decreased 23.9 per cent. Increases in total construction were shown in the following cities: Jacksonville, Atlanta, Charlotte, Richmond, and Roanoke. Decreases were shown in Washington, Miami, Baltimore, Columbia, and Newport News. In Washington, D. C., permits were issued for 197 1-family dwellings to cost over $1,000,000, and for 2 public garages to cost $560,000. In Jacksonville, Fla., the Western Union Telegraph Co. was erecting a building to cost $200,000. In Atlanta, Ga., a permit was issued for an office building which will cost upon completion nearly $500,000. In Baltimore a paper-box factory was started which will cost $210,000. A contract was let in Richmond, Va., for a post office and Federal courthouse extension to cost $833,732. In Roanoke a permit was issued for an office building to cost $700,000. No reports were received from Lynchburg, Va., and Huntington, W. Va.

South Central States

ALL classes of building in the South Central States registered increases, comparing July with June. In the case of residential buildings the increase was 8.0 per cent. For nonresidential buildings the increase was 55.3 per cent and for total building operations the increase was 32.2 per cent. There was a decrease, however, in the new family dwelling units provided, comparing July with June, of 15.2 per cent. Large increases in total building operations were shown in New Orleans, Oklahoma City, Dallas, and Houston. Decreases were shown in Little Rock, Louisville, Tulsa, and Memphis. In New Orleans the United States Government issued a contract for a marine hospital to cost $1,178,000. In Oklahoma City a permit was issued for a hotel building to cost $300,000, and for 19 oil derricks to cost $1,900,000. In Tulsa, Okla., a permit was issued for an over-pass building at the Union Station to cost $223,000, and for a factory building to cost $125,000. Houston, Tex., issued permits for a factory building to cost nearly $700,000.

No reports were received from Birmingham, Ala., Fort Smith, Ark., Covington, Ky., Baton Rouge, La., El Paso, Galveston, Laredo, and Port Arthur, Tex.

Mountain and Pacific States

DECREASES were registered in all classes of building operations in the Mountain and Pacific States, comparing July permits with June permits. A decrease in residential building was only nine-tenths of 1 per cent. The decrease in nonresidential building was 12.3 per cent and for all building operations was 9.4 per cent. The number of families provided for in new buildings decreased 6.2 per cent.

The following cities showed sizable increases in total building construction, comparing the month of July with the month of June: Phoenix, Los Angeles, Denver, and Spokane. Decreases were registered in the following cities: San Francisco, Colorado Springs, Portland, Salt Lake City, and Seattle. In Pasadena a permit was issued for a hotel building to cost nearly $600,000 and for an office building to cost $340,000. In Denver a contract was let for the United States customhouse to cost $900,000.

No report was received from Great Falls, Mont.

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JUNE AND JULY, 1930

New England States

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	June	July	June	July	June	July	June	July
Connecticut:								
Greenwich	$388,500	$244,000	23	19	$116,140	$38,240	$517,715	$365,100
Hartford	21,600	6,000	3	1	1,474,300	235,555	1,682,261	296,792
Meriden	27,700	13,000	6	3	11,064	6,763	46,076	37,187
New Britain	30,500	16,000	5	2	20,900	13,394	63,608	47,358
New Haven	130,300	93,000	16	11	589,225	162,250	790,340	359,588
Norwalk	59,000	207,000	10	15	68,560	32,950	173,610	259,300
Stamford	35,500	90,000	6	13	105,225	5,500	172,740	168,000
Waterbury	66,000	29,000	14	7	377,900	15,750	499,550	64,200
Maine:								
Bangor	19,400	15,000	6	4	6,375	3,925	28,625	21,700
Lewiston	13,000	40,000	3	7	12,200	10,600	25,200	52,600
Portland	112,010	18,450	30	5	16,065	5,630	159,937	61,939
Massachusetts:								
Boston [1]	490,600	507,300	112	115	701,010	1,524,810	1,878,893	2,907,902
Brockton	32,500	41,000	5	9	32,955	153,964	75,368	232,474
Brookline	171,000	817,000	9	108	18,250	187,900	229,723	1,092,575
Cambridge	123,500	34,500	7	10	43,925	860,905	215,516	1,005,665
Chelsea		4,500		1	1,100	12,750	6,535	22,950
Chicopee	26,700	17,300	9	5	47,400	2,300	80,575	46,800
Everett	26,400	20,000	8	6	35,700	124,300	67,800	166,450
Fall River	24,200	16,140	5	5	22,720	4,630	159,065	26,175
Fitchburg	22,000	11,000	4	2	29,830	1,515	58,530	13,610
Haverhill	14,875	20,750	5	7	10,165	8,585	31,500	40,885
Holyoke	11,500	15,500	2	3	754,925	5,750	777,675	31,800
Lawrence	20,500	2,000	6		13,400	18,400	63,650	55,950
Lowell	9,000	17,000	2	2	7,275	368,610	37,039	400,635
Lynn	25,700	45,300	6	9	170,247	4,330	271,977	87,770
Malden	33,000	20,100	7	4	2,230	39,180	49,765	91,010
Medford	133,800	68,700	23	14	9,990	27,910	155,520	106,960
New Bedford	7,500		1		228,100	24,725	248,125	36,475
Newton	335,300	264,000	32	26	879,800	34,763	1,333,367	376,420
Pittsfield	76,500	110,900	17	17	277,375	43,450	359,425	154,350
Quincy	88,600	79,650	22	19	129,129	180,425	252,241	280,349
Revere	28,700	29,000	7	7	4,365	1,540	50,995	188,865
Salem	47,500	45,500	9	8	19,450	3,600	138,045	69,030
Somerville	18,000	8,000	4	2	7,900	14,960	55,254	45,660
Springfield	79,500	207,200	22	49	194,050	32,220	312,550	282,295
Taunton	13,000	6,700	2	2	2,220	2,755	307,215	21,325
Waltham	62,900	52,600	14	10	33,425	5,875	102,400	64,000
Watertown	55,000	9,500	11	2	82,100	13,550	138,200	27,250
Worcester	204,800	154,600	22	27	560,594	1,148,825	891,593	1,624,749
New Hampshire:								
Manchester	40,435	26,725	12	12	5,095	5,460	55,950	52,587
Rhode Island:								
Central Falls	5,500		2		17,580		40,580	240
Cranston	68,800	94,500	16	20	18,245	95,390	90,765	197,805
East Providence	93,700	78,100	15	14	12,740	24,145	121,878	180,414
Newport	152,150	9,000	4	1	7,120	11,450	162,170	151,510
Pawtucket	33,500	45,450	9	12	18,990	19,070	72,890	71,610
Providence	179,200	170,900	29	27	234,025	1,306,925	754,175	2,018,080
Woonsocket	10,000	4,000	3	1	9,510	11,425	52,075	19,723
Total	3,669,370	3,825,865	585	643	7,440,889	6,856,949	13,858,686	13,926,103
Per cent of change		+4.3		+9.9		−7.9		+0.5

Middle Atlantic States

New Jersey:								
Atlantic City	$18,900		4		$53,410	$20,353	$85,355	$56,002
Bayonne	48,000		25		157,400	3,650	213,300	33,800
Bloomfield	55,000	$85,000	12	15	9,000	13,000	73,000	102,000
Camden	60,000	43,200	6	17	30,575	37,085	112,100	106,810
Clifton	60,500	147,800	14	35	8,350	25,350	74,285	179,090
East Orange	9,000	133,000	2	7	47,207	21,346	93,187	175,236
Elizabeth	97,000	65,000	24	11	489,000	342,000	615,800	407,000

[1] Applications filed.

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JUNE AND JULY, 1930—Continued

Middle Atlantic States—Continued

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	June	July	June	July	June	July	June	July
New Jersey—Contd.								
Hoboken	$20,000		2			$1,000	$36,290	$246,470
Irvington	44,000	$6,000	10	1	$811,155	56,690	863,670	64,715
Jersey City	15,000	12,000	3	2	47,742	1,289,305	166,717	1,389,955
Kearny	34,500	5,000	9	1	68,287	51,400	105,222	65,900
Montclair	69,500	121,250	9	10	50,515	91,957	145,625	224,474
Newark	131,500	118,000	22	22	1,038,665	1,199,201	1,355,864	1,424,316
New Brunswick		22,000		4		1,750		39,690
Orange					3,950	17,525	35,430	31,126
Passaic	8,000	16,000	1	2	15,350	110,100	52,781	156,050
Paterson	53,200	132,800	11	35	81,160	22,650	200,229	216,840
Perth Amboy	24,000	3,000	4	1	560,900	129,260	607,750	146,349
Plainfield	134,205	15,100	13	3	21,100	10,140	181,295	34,515
Trenton	41,000	12,100	14	2	693,423	29,575	750,563	76,405
Union City					1,600	6,700	14,930	34,160
West New York					550	19,400	9,485	22,585
New York:								
Albany	173,000	207,900	25	18	346,050	272,225	681,363	716,463
Amsterdam	26,000	17,000	4	4	15,900	732,500	41,900	756,000
Auburn	28,500	23,000	6	4	29,870	7,040	63,065	33,340
Binghamton	39,360	10,450	6	3	8,475	7,685	119,564	47,186
Buffalo	550,700	168,000	160	58	355,824	782,297	982,979	1,164,400
Elmira	25,800	556,100	3	4	7,376	242,340	73,201	812,239
Jamestown	45,100	25,200	10	5	4,900	15,925	77,814	51,298
Kingston	19,400		3		225,705	170,115	253,529	204,500
Mount Vernon	223,000	649,000	23	169	42,900	28,625	298,455	728,965
Newburgh		28,000		5	5,800	54,700	111,975	89,200
New Rochelle	319,600	255,500	21	16	433,061	23,910	776,986	386,995
New York City—								
Bronx [1]	2,824,000	3,033,450	647	695	765,930	653,600	4,653,085	3,970,005
Brooklyn [1]	3,154,400	4,159,100	699	858	4,118,160	1,419,335	8,294,610	6,435,665
Manhattan [1]	4,895,000	9,313,000	1,056	1,217	9,550,280	23,517,700	16,971,675	36,134,175
Queens [1]	4,436,350	1,446,450	916	322	1,361,726	1,976,405	6,191,411	4,195,954
Richmond [1]	213,800	301,650	62	70	204,032	387,231	489,296	763,736
Niagara Falls	132,800	74,700	29	16	83,412	53,135	259,096	186,695
Poughkeepsie	22,000	17,000	3	2	1,800	5,625	62,900	28,225
Rochester	227,848	131,035	50	27	60,035	705,291	459,666	928,105
Schenectady	98,300	441,500	16	19	147,900	236,250	287,800	727,150
Syracuse	225,500	200,000	37	34	190,750	177,715	497,835	487,475
Troy	49,700	16,500	8	4	31,425	8,725	100,850	78,540
Utica	47,300	17,500	5	3	42,100	271,340	97,475	310,660
Watertown	14,700		4		2,605	103,140	42,507	111,847
White Plains	158,000	592,000	12	86	361,650	114,700	529,985	728,685
Yonkers	279,750	366,800	32	54	114,025	324,225	418,625	783.025
Pennsylvania:								
Allentown	113,000	30,000	15	2	19,100	86,230	195,848	146,830
Altoona	64,450	39,800	14	8	41,787	34,180	135,050	105,693
Bethlehem	66,200		15		45,320	176,250	137,695	188,200
Butler	10,900	7,600	4	3	2,000	3,250	13,150	13,650
Chester		5,500		1	257,774	8,625	266,474	24,425
Easton	6,500		1		38,525	8,950	59,233	12,875
Erie	82,500	55,500	20	11	32,690	277,425	339,310	385,030
Harrisburg	57,000	122,000	6	8	62,825	27,270	163,750	239,056
Hazleton	28,387	24,737	2	5	4,936	12,761	47,285	49,739
Johnstown		10,000		2	11,915	110,330	21,815	132,355
Lancaster	179,000	71,000	4	1	3,065	158,925	198,510	260,065
McKeesport	42,300	20,500	10	3	43,525	80,715	124,440	135,937
New Castle	24,250	47,700	5	5	2,350	8,010	31,605	56,370
Norristown	32,500	66,600	6	4	439,606	15,770	484,321	95,448
Philadelphia	442,000	358,900	101	93	7,643,505	1,483,350	8,657,755	2,532,370
Pittsburgh	699,650	520,100	159	97	362,915	280,850	2,397,226	1,080,497
Scranton	31,800	1,600	9	1	47,850	94,375	95,975	126,790
Wilkes-Barre	36,150	9,000	9	2	82,205	31,210	151,453	59,115
Wilkinsburg	47,500	25,800	7	5	2,900	64,790	60,268	110,890
Williamsport	25,000	2,200	3	3	85,941	108,218	139,506	125,578
York	19,000	31,300	3	4	70,065	159,950	102,144	308,949
Total	21,161,300	24,415,922	4,415	4,115	32,001,829	39,020,900	62,453,338	72,244,188
Per cent of change		+15.4		−6.8		+21.9		+15.7

[1] Applications filed.

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JUNE AND JULY, 1930—Continued

East North Central States

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	June	July	June	July	June	July	June	July
Illinois:								
Alton	$14,440	$28,900	4	8	$9,115	$2,012	$38,703	$54,438
Aurora	26,785	33,120	6	8	44,870	15,885	90,560	66,707
Belleville	37,000	57,000	8	12	1,025	24,100	40,775	81,100
Bloomington	56,000	50,000	8	8	17,500	10,000	88,500	73,000
Chicago	1,319,100	1,329,950	167	237	3,224,600	6,788,050	5,180,315	8,644,070
Cicero	67,000	24,500	10	4	168,410	38,598	246,460	89,348
Danville	6,600	12,600	2	3		700	16,185	24,150
Decatur	99,200	32,500	19	2	139,540	25,700	247,940	65,850
East St. Louis	33,080	27,300	14	11	277,525	11,200	313,980	51,751
Elgin	52,950	22,100	11	4	26,105	31,400	89,121	68,180
Evanston	20,000	84,000	1	6	97,000	128,000	174,000	319,750
Joliet	11,500	38,500	2	6	218,800	226,000	268,450	305,380
Moline	48,900	103,200	10	14	5,910	9,005	117,060	122,115
Oak Park	25,500	129,000	3	24	216,590	32,235	261,300	171,865
Peoria	164,200	165,150	34	40	199,300	38,775	414,470	203,925
Quincy	27,000	8,000	7	2	207,310	1,395	235,610	16,360
Rockford	109,000	77,000	27	19	115,390	41,825	275,675	145,535
Rock Island	28,800	23,100	11	8	4,440	9,940	112,467	96,789
Springfield	40,650	85,250	10	20	906,245	38,685	1,071,288	144,815
Indiana:								
East Chicago	5,600	12,700	1	3	232,021	43,532	261,846	78,496
Elkhart	13,500	38,500	2	5	49,673	5,270	71,552	53,203
Evansville	77,200	60,100	17	19	2,875	15,637	134,438	94,679
Fort Wayne	163,350	85,850	27	18	35,640	74,135	216,080	234,215
Gary	73,600	24,300	24	7	30,150	40,785	141,650	114,935
Hammond	69,500	65,000	17	15	33,035	208,480	117,608	298,805
Indianapolis	285,750	165,650	53	38	800,922	245,101	1,175,177	517,584
Kokoma	2,900		2		585	3,215	4,510	10,073
Marion	2,000		2		41,775	700	50,420	13,430
Muncie	27,047	18,850	8	7	3,841	8,548	45,361	33,593
Richmond	13,400	19,650	8	7	13,050	2,190	35,800	24,698
Terre Haute	44,450	7,100	6	2	7,890	4,885	61,102	24,107
Michigan:								
Bay City	19,000	84,000	5	4	10,725	3,500	53,843	241,565
Detroit	2,752,050	1,518,062	409	340	1,636,643	1,509,909	5,111,757	3,625,963
Flint	146,239	97,846	36	22	35,796	404,250	220,125	543,341
Grand Rapids	94,100	42,850	21	15	50,480	230,130	233,900	319,165
Hamtramck	12,000		2		12,920		47,580	41,565
Highland Park	307,800		2		5,000	22,050	312,800	22,050
Jackson	27,000	47,000	5	8	18,115	5,355	65,395	62,680
Kalamazoo	64,500	53,975	12	12	46,315	52,165	192,410	121,691
Lansing	59,439	31,500	12	7	67,705	51,855	180,564	103,480
Muskegon	34,000	5,900	11	2	19,460	114,140	53,460	132,688
Pontiac	3,500	19,100	2	4	17,675	18,185	25,915	45,530
Saginaw	45,900	17,950	12	3	16,807	6,030	86,313	115,190
Ohio:								
Akron	1,698,900	102,200	42	23	403,179	592,428	2,154,722	767,308
Ashtabula	4,750	3,500	2	1	8,115	7,500	16,330	21,750
Canton	48,900	27,500	7	5	61,750	21,115	130,140	55,050
Cincinnati	1,441,050	632,250	136	99	446,685	1,122,215	2,014,065	1,921,700
Cleveland	305,500	373,000	65	79	1,532,011	399,200	2,152,536	1,120,425
Columbus	373,400	285,200	66	64	578,500	45,100	1,035,000	443,850
Dayton	47,700	67,412	9	16	92,827	245,476	191,447	443,248
East Cleveland	456,000		34		1,690	935	464,640	3,840
Hamilton	37,300	46,200	7	8	11,900	23,755	59,655	83,325
Lakewood	176,500	47,000	40	10	12,995	51,591	191,645	101,091
Lima	5,000	4,000	1	1	1,665	1,275	9,740	14,997
Lorain	18,100	19,200	5	5	10,850	4,977	37,530	29,402
Mansfield	64,000	49,600	8	12	4,293	25,604	75,483	80,594
Marion		3,000		1	15,590	365,505	16,050	371,305
Newark	6,400	2,800	3	1	3,425	81,650	12,925	86,950
Portsmouth		1,400		1	1,450	9,075	4,075	16,705
Springfield	33,500	18,000	10	6	37,610	6,980	79,010	28,985
Steubenville	19,200	29,500	6	7	178,825	6,050	201,800	46,800
Toledo	72,880	104,300	18	29	1,451,375	121,582	1,609,885	373,402
Warren	6,140	42,680	3	12	18,445	36,690	46,920	93,060
Youngstown	108,580	36,100	25	9	524,335	30,830	719,385	128,575

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JUNE AND JULY, 1930—Continued

East North Central States—Continued

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	June	July	June	July	June	July	June	July
Wisconsin:								
Fond du Lac	$2,000	$8,500	1	3	$25,275	$1,070	$42,745	$12,145
Green Bay	54,200	42,700	13	9	156,775	19,715	269,431	75,755
Kenosha	50,100	35,400	7	6	121,000	6,700	194,810	52,835
Madison	163,250	61,500	31	13	33,320	200,723	223,060	279,228
Milwaukee	470,900	553,992	125	134	1,881,141	1,300,940	2,584,693	4,458,757
Oshkosh	77,550	16,100	9	7	15,973	20,495	104,388	44,195
Racine	78,900	31,100	19	5	1,319,100	398,435	1,420,330	437,435
Sheboygan	53,300	26,000	11	6	61,855	26,460	134,784	92,782
Superior	22,000	21,100	6	2	4,295	23,395	52,665	55,065
Total	12,427,530	7,438,287	1,759	1,548	18,085,022	15,741,018	34,432,354	29,358,413
Per cent of change		−40.2		−12.0		−13.0		−14.7
West North Central States								
Iowa:								
Burlington	$32,000		5		$1,900	$97,325	$43,660	$114,940
Cedar Rapids	18,400	$42,100	4	10	86,223	280,446	138,330	422,069
Council Bluffs	5,000	13,000	2	6	149,000	5,200	168,000	64,700
Davenport	50,300	56,840	12	11	10,378	10,904	95,872	190,589
Des Moines	92,850	117,050	15	30	1,296,614	126,105	1,414,879	270,905
Dubuque	12,300	14,500	4	5	9,765	365,390	54,863	432,955
Ottumwa	14,400	17,200	4	4	100,250	500	123,450	23,450
Sioux City	42,300	46,600	12	13	105,895	17,070	158,530	77,470
Waterloo	20,100	90,400	6	14	9,100	93,530	39,300	193,205
Kansas:								
Kansas City	36,250	49,750	18	12	79,955	36,420	126,700	97,795
Topeka	68,100	37,300	15	6	30,420	58,245	106,795	108,220
Wichita	183,710	124,485	46	37	416,600	219,605	700,325	404,722
Minnesota:								
Duluth	23,500	41,700	8	12	17,115	617,450	133,548	708,798
Minneapolis	376,375	456,675	134	114	891,855	482,060	1,792,700	1,072,430
St. Paul	234,120	858,498	48	35	3,018,512	125,208	3,452,182	1,167,581
Missouri:								
Joplin	23,000	15,000	7	1	67,800	76,218	103,000	95,218
Kansas City	201,000	196,000	51	44	382,500	1,886,000	819,850	2,294,650
St. Joseph	16,750	41,300	6	8	4,720	13,473	27,320	91,123
St. Louis	378,000	674,000	95	185	1,377,879	515,155	2,107,466	1,408,999
Nebraska:								
Lincoln	137,300	39,800	25	6	26,125	10,815	195,215	54,565
Omaha	158,650	56,450	48	15	110,510	106,988	488,865	197,788
South Dakota:								
Sioux Falls		92,250		23		78,750		178,875
Total	2,024,405	2,988,648	565	568	8,193,116	5,144,107	12,290,850	9,492,172
Per cent of change		+47.6		+0.5		−37.2		−22.8
South Atlantic States								
Delaware:								
Wilmington	$168,100	$179,900	32	26	$40,350	$41,288	$256,700	$288,210
District of Columbia:								
Washington	898,950	1,042,200	153	123	2,277,670	1,230,797	3,492,290	2,615,227
Florida:								
Jacksonville	30,100	21,325	15	10	21,105	274,250	119,795	380,555
Miami	37,200	19,650	8	10	131,250	16,915	270,811	99,279
Pensacola	16,360	69,670	8	24	2,025	6,300	26,620	90,903
St. Petersburg	82,000	10,200	6	2	5,000	150	105,000	31,350
Tampa	20,500	12,600	2	8	21,111	79,122	67,033	126,358
Georgia:								
Atlanta	127,550	111,985	76	68	214,561	581,022	439,495	766,333
Columbus	31,250	50,225	13	12	425	10,000	39,645	69,775
Macon	4,750	12,950	6	5	37,525	7,700	78,005	61,280
Savannah	17,200	27,200	5	9	12,915	325	30,790	64,745

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JUNE AND JULY, 1930—Continued

South Atlantic States—Continued

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	June	July	June	July	June	July	June	July
Maryland:								
Baltimore	$1,035,000	$527,000	228	93	$514,800	$892,000	$2,430,700	$2,132,300
Cumberland	15,500	5,250	4	2	14,909	7,910	31,584	16,365
Hagerstown	32,000	28,900	3	8	135,914	96,130	168,979	129,121
North Carolina:								
Asheville	5,000	2,500	2	1	8,875	42,300	23,780	52,875
Charlotte	116,445	94,200	39	16	78,325	124,285	213,951	287,396
Durham	75,930	22,550	8	8	----------	33,000	86,680	70,775
Greensboro	36,000	42,000	5	9	100,255	8,331	149,307	59,861
Wilmington	4,500	12,500	3	4	303,000	800	313,400	22,200
Winston-Salem	16,800	40,650	6	11	4,590	61,400	43,075	117,525
South Carolina:								
Charleston	26,000	7,300	8	3	700	13,775	63,560	36,961
Columbia	352,600	55,450	7	26	37,200	12,825	396,090	115,245
Greenville	47,500	23,500	10	5	1,825	14,900	72,780	51,585
Virginia:								
Newport News	80,150	8,500	10	5	2,162	57,757	123,171	74,470
Norfolk	51,650	94,834	12	21	15,220	115,220	95,170	243,304
Petersburg	3,000	3,750	2	2	240	3,300	3,646	17,895
Portsmouth	16,500	5,600	5	2	23,075	625	46,150	19,343
Richmond	62,400	53,066	14	14	167,050	1,008,042	304,097	1,137,445
Roanoke	36,850	68,700	8	7	14,208	836,375	55,208	913,965
West Virginia:								
Clarksburg	2,300	----------	3	-------	1,130	6,755	13,070	13,765
Wheeling	41,050	29,700	10	7	12,242	2,805	81,139	65,996
Total	3,491,135	2,683,855	711	541	4,199,657	5,586,404	9,641,721	10,172,407
Per cent of change	----------	−23.1	-------	−23.9	----------	+33.0	----------	+5.5

South Central States

Alabama:								
Mobile	$37,600	$27,300	15	38	$40,680	$26,700	$90,623	$65,090
Montgomery	56,000	54,700	26	23	28,552	124,950	109,862	208,970
Arkansas:								
Little Rock	83,600	99,410	27	19	32,475	7,915	186,811	139,251
Kentucky:								
Louisville	173,500	215,000	27	35	518,205	137,670	798,975	418,020
Paducah	11,850	4,050	7	3	----------	70,050	15,650	74,235
Louisiana:								
New Orleans	73,750	157,960	22	33	82,750	1,483,725	226,997	1,828,511
Shreveport	87,273	27,700	16	13	149,095	49,995	354,610	123,747
Oklahoma:								
Muskogee	3,000	----------	1	-------	10,850	166,500	13,850	173,125
Oklahoma City	446,800	1,105,700	173	181	1,060,751	2,277,197	1,559,866	3,439,262
Okmulgee	----------	----------	-------	-------	425	----------	425	1,840
Tulsa	256,890	188,775	62	52	725,230	365,755	1,014,585	590,698
Tennessee:								
Chattanooga	87,400	58,939	26	21	73,880	349,634	210,304	458,408
Knoxville	118,619	48,032	76	8	16,146	186,660	149,316	239,005
Memphis	377,000	250,900	119	74	556,660	56,550	1,020,760	396,890
Nashville	83,400	157,175	28	52	116,795	17,900	250,940	222,498
Texas:								
Austin	93,395	104,087	46	47	88,078	59,458	240,944	295,393
Beaumont	71,200	25,713	18	16	20,936	53,489	143,995	148,762
Dallas	374,500	203,105	130	78	108,365	849,595	656,752	1,286,827
Fort Worth	122,328	87,465	51	39	498,416	68,644	708,128	227,197
Houston	668,875	783,580	184	161	543,518	1,035,788	1,259,336	1,841,004
San Antonio	248,905	170,005	103	91	76,845	31,085	441,450	415,015
Waco	24,867	29,067	11	9	37,206	23,920	72,700	73,720
Wichita Falls	16,000	950	4	1	7,950	1,600	66,996	9,085
Total	3,516,752	3,709,613	1,172	994	4,793,808	7,444,780	9,591,875	12,676,553
Per cent of change	----------	+8.0	-------	−15.2	----------	+55.3	----------	+32.2

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, JUNE AND JULY, 1930—Continued

Mountain and Pacific States

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	June	July	June	July	June	July	June	July
Arizona:								
Phoenix	$133,160	$109,950	66	37	$24,880	$321,320	$217,770	$449,215
Tucson	90,100	43,430	10	16	131,540	10,260	255,554	69,838
California:								
Alameda	23,250	4,000	5	1	38,800	44,766	77,577	64,940
Berkeley	103,700	86,500	20	31	23,713	26,371	197,802	171,411
Fresno	24,450	12,150	5	5	50,535	28,155	119,682	79,199
Long Beach	507,050	345,400	141	123	419,955	458,485	993,690	858,705
Los Angeles	2,956,537	2,804,729	993	936	1,672,166	2,154,316	5,485,138	5,841,626
Oakland	223,600	195,664	77	43	559,835	169,350	871,329	454,399
Pasadena	96,445	944,605	10	24	887,561	428,073	1,261,834	1,447,707
Sacramento	73,600	86,352	16	33	47,310	35,853	170,457	204,157
San Diego	241,850	268,150	69	73	106,080	131,362	442,543	452,541
San Francisco	919,149	518,500	185	127	989,635	255,014	2,202,806	1,057,907
San Jose	39,960	56,275	9	11	408,710	358,575	501,990	455,380
Stockton	32,100	7,700	8	2	19,975	7,965	98,979	48,440
Vallejo	1,500	22,275	2	7	20,225	5,750	27,835	31,577
Colorado:								
Colorado Springs	102,100	18,500	3	3	218,440	4,580	329,923	28,570
Denver	258,500	90,000	69	20	353,150	1,007,200	756,000	1,211,100
Pueblo	10,600	9,000	5	4	7,435	8,445	42,951	53,730
Montana:								
Butte	3,940	1,698	15	6	15,216	5,110	25,201	9,893
Oregon:								
Portland	272,150	257,630	48	44	405,205	123,290	937,610	584,995
Utah:								
Ogden	17,175	7,000	8	3	37,400	2,500	95,575	13,700
Salt Lake City	298,250	285,200	88	88	155,450	7,135	496,890	320,275
Washington:								
Bellingham	22,000	11,200	6	6	116,115	8,495	144,545	28,692
Everett	50,700	15,350	8	7	10,805	1,465	96,020	28,370
Seattle	551,885	790,000	151	219	448,890	264,525	1,580,105	1,315,530
Spokane	106,600	76,200	23	19	75,780	352,840	282,474	577,350
Tacoma	126,500	155,500	40	64	15,680	144,750	166,185	338,880
Total	7,286,851	7,222,958	2,080	1,952	7,260,486	6,365,950	17,878,465	16,198,127
Per cent of change		−0.9		−6.2		−12.3		−9.4

Hawaii

Honolulu	$190,309	$122,629	61	50	$378,806	$73,590	$616,917	$218,554
Per cent of change		−35.6		−18.0		−80.6		−64.6

Average Construction Costs of Dwellings in Principal Cities of the United States in 1930

ACCORDING to the preliminary statement of the 1930 census there are 91 cities in the United States having a population of 100,000 or over. Of this number, 13 have a population of over 500,000 28 have a population of over 200,000 but less than 500,000, and 50 have a population of over 100,000 but less than 200,000. The following tables show the number of families provided for and the average cost per family accommodated in the different kinds of dwellings for which permits were issued during the first six months of 1930 in these

91 cities. The costs shown are as stated by the builder on applying for his permit to build. They are limited to construction costs of dwellings in the corporate limits of these cities. No land costs are included. The figures refer to construction costs on the job only.

Table 1 shows the number of families provided for and the average cost per family of the different kinds of dwellings for which permits were issued during the first half of 1930, by population groups.

TABLE 1.—AVERAGE COST OF DWELLING ACCOMMODATIONS PER FAMILY IN CITIES OF 100,000 POPULATION OR OVER, BY KIND OF DWELLING AND BY POPULATION GROUP, FIRST HALF OF 1930

Population group	1-family dwellings		2-family dwellings		Multifamily dwellings		All classes of dwellings	
	Number of families provided for	Average cost per family	Number of families provided for	Average cost per family	Number of families provided for	Average cost per family	Number of families provided for	Average cost per family
100,000 to 200,000	5,676	$4,691	1,381	$3,187	2,226	$2,482	9,283	$3,938
200,000 to 500,000	6,827	4,581	1,311	3,664	3,616	2,902	11,754	3,962
Over 500,000 [1]	12,231	5,156	4,601	4,499	15,786	4,119	32,618	4,561
Total	24,734	4,891	7,293	4,100	21,628	3,747	53,655	4,322

[1] Includes data for Washington, D. C., population 485,716.

In the 91 cities of the United States having a population of 100,000 or over, 53,655 families were provided with dwelling accommodations in new buildings during the first half of 1930. The average cost of these dwelling units was $4,322. The most expensive units were provided in cities having a population of over 500,000. The average dwelling cost per family provided for in cities of this class was $4,561. In cities having a population of from 200,000 to 500,000 the average cost of all new dwelling units was $3,962, and in the cities of the population group from 100,000 to 200,000, dwellings averaged $3,938 per family.

New living accommodations were provided in 1-family dwellings for 24,734 families at an average cost of $4,891. Fifty per cent of these families were to live in cities having a population of over 500,000, where the average cost of the single family dwellings was $5,156.

The average cost of the 1-family dwellings in the cities of the 200,000 to 500,000 population group was lower than in either of the other two groups. The average cost of the 7,293 2-family dwelling units was $4,100. The 13 cities having a population of 500,000 or over accommodated 4,601 families in this class of dwelling. The average per family cost of accommodations in 2-family dwellings ranged from $3,187 in the cities having a population of 100,000 to 200,000 to $4,499 in the cities having a population of over 500,000.

According to permits issued in these 91 cities, dwelling units were provided in apartment houses for 21,628 families at an average cost of $3,747. Approximately 75 per cent of these families were to live in cities of over 500,000 population. The average cost of dwelling units in apartment houses of these large cities was $4,119. In the population group of over 100,000 but less than 200,000 the average cost of dwelling units in apartment houses was $2,482, and in the inter-

mediate population group the cost per family in this class of dwelling was $2,902.

It will be noted that the average cost of dwelling units in apartment houses was considerably less than in either of the other two types of dwellings. Erection costs of 1-family dwellings was over $1,000 more per family than the per family costs in new apartment buildings.

Table 2 shows the average cost of each kind of dwelling for each of the 14 cities having a population of 500,000 or over, the cities being arranged in ascending order of cost per dwelling.

TABLE 2.—AVERAGE COST OF DWELLING ACCOMMODATIONS, PER FAMILY IN CITIES OF 500,000 POPULATION OR OVER, BY KIND OF DWELLING AND BY CITIES, FIRST HALF OF 1930

City	Number of families provided for	Average cost per family	City	Number of families provided for	Average cost per family
1-family dwellings			*Multifamily dwellings* [4]		
Los Angeles	2,169	$3,861	Los Angeles	3,013	$1,906
Philadelphia	707	4,104	Milwaukee	401	2,636
St. Louis	452	4,221	St. Louis	238	2,945
San Francisco	627	4,630	Detroit	338	2,973
Baltimore	941	4,745	Buffalo	164	3,183
Cleveland	460	5,002	Baltimore	45	3,222
Buffalo	106	5,006	Pittsburgh	229	3,226
Queens [1]	2,459	5,142	Queens [1]	1,583	3,414
Pittsburgh	541	5,314	San Francisco	449	3,459
Boston	228	5,476	Bronx [1]	1,868	3,815
Detroit	1,348	5,559	Brooklyn [1]	1,791	3,859
New York City (all boroughs)	3,312	5,582	Boston	224	3,908
Milwaukee	237	5,874	New York City (all boroughs)	8,808	4,596
Brooklyn [1]	528	6,507	Philadelphia	425	5,009
Chicago	573	7,062	Cleveland	256	5,031
Bronx [1]	293	7,116	Richmond [1]	46	5,435
Richmond [1]	31	7,160	Manhattan [1]	3,520	5,906
Washington [2]	530	7,800	Chicago	658	6,493
Manhattan [1]	1	100,000	Washington [2]	538	8,391
Total (14 cities)	12,231	5,156	Total (14 cities)	15,786	4,119
2-family dwellings [3]			*All classes of dwellings*		
Baltimore	0	$0	Los Angeles	5,812	$2,846
Manhattan [1]	0	0	Buffalo	563	3,152
Buffalo	293	2,465	St. Louis	786	3,717
St. Louis	96	3,253	Milwaukee	894	3,837
Washington [2]	22	3,364	San Francisco	1,152	4,151
Milwaukee	256	3,834	Bronx [1]	2,274	4,312
Los Angeles	630	3,850	Boston	778	4,440
Detroit	819	3,884	Queens [1]	4,749	4,469
Boston	326	4,082	Brooklyn [1]	2,779	4,547
San Francisco	76	4,296	Philadelphia	1,196	4,634
Queens [1]	707	4,493	Detroit	2,505	4,663
Richmond [1]	275	4,662	Baltimore	986	4,675
New York City (all boroughs)	1,555	4,722	Pittsburgh	837	4,712
Pittsburgh	67	4,940	New York City (all boroughs)	13,675	4,849
Brooklyn [1]	460	4,978	Richmond [1]	352	4,983
Bronx [1]	113	5,257	Cleveland	798	5,089
Cleveland	82	5,762	Manhattan [1]	3,521	5,932
Philadelphia	64	8,000	Chicago	1,546	7,120
Chicago	315	8,536	Washington [2]	1,090	8,002
Total (14 cities)	4,601	4,499	Total (14 cities)	32,618	4,561

[1] A borough of "Greater New York."
[2] Included in table although estimated population is only 485,716.
[3] Includes 1-family and 2-family dwellings with stores.
[4] Includes multifamily dwellings with stores.

The average cost of 1-family dwellings in cities having a population of over one-half million ranged from $3,861 in Los Angeles to $7,800 in Washington. The average cost of all 1-family dwellings in

these 14 cities was $5,156. In New York City permits were issued for 3,312 1-family dwellings during the first half of 1930 at an average cost of $5,582 per dwelling. There was quite a difference in the cost in the different boroughs. In the borough of Queens the cost per dwelling was $5,142, while in Brooklyn 1-family dwellings averaged $6,507. In the borough of Richmond permits were issued for 31 dwellings at an average cost of $7,160. A permit was issued for one dwelling in the borough of Manhattan to cost $100,000.

Two-family dwellings ranged in cost from $2,465 per family in Buffalo to $8,536 per family in Chicago. Detroit issued permits for more 2-family dwellings than any other city except New York. The average cost of this class of dwelling in the Michigan metropolis was $3,884.

The average cost of the 15,786 family dwelling units provided for in new apartment house buildings was $4,119. Los Angeles showed the lowest cost in this class of dwelling, the per family cost being $1,906. In the city of Washington the cost per unit of family accommodations in new apartment buildings was $8,391, nearly four and a half times the Los Angeles cost. The erection cost of apartment houses in New York was $4,596 per family. Chicago showed a high per family cost in this class of dwelling, 658 families being provided for at a cost of $6,493 per family.

In the 14 cities having a population of 500,000 and over, 32,618 families were provided with dwelling accommodations in new buildings during the period under discussion. The average cost of all classes of dwellings was $4,561 per family. Los Angeles provided for more families than any other city in the United States except New York, and the average cost per family was less than in any other city having a population of 500,000 or over. The cost of all dwellings for which permits were issued during the first six months of 1930 in Los Angeles was $2,846. In Washington the cost of all dwellings provided for during this period was $8,002 per family. The only other cities in this population group where the average cost of dwelling units was over $5,000 were Cleveland and Chicago. The borough of Manhattan also showed an average cost of over $5,000 per family. In New York as a whole the average cost was $4,849. No city except Los Angeles had a cost of less than $3,000. Buffalo, St. Louis, and Milwaukee showed per family dwelling costs of less than $4,000, however.

Table 3 shows the average cost of each kind of dwelling for each of the 27 cities having a population of over 200,000 but less than 500,000.

TABLE 3.—AVERAGE COST OF DWELLING ACCOMMODATIONS PER FAMILY IN CITIES HAVING A POPULATION BETWEEN 200,000 AND 500,000, BY KIND OF DWELLING AND BY CITIES, FIRST HALF OF 1930

City	Number of families provided for	Average cost per family	City	Number of families provided for	Average cost per family
1-family dwellings			*Multifamily dwellings* [2]		
Jersey City	0	0	New Orleans	0	0
Birmingham	96	$2,368	San Antonio	63	$1,670
San Antonio	483	2,648	Rochester	28	1,786
Dallas	275	2,719	Atlanta	127	1,908
Memphis	449	3,247	Dallas	110	1,975
Seattle	682	3,413	Denver	111	2,054
New Orleans	112	3,564	Indianapolis	12	2,192
Atlanta	203	3,680	Kansas City, Mo	287	2,195
Oakland	242	4,182	Toledo	63	2,286
Houston	901	4,362	St. Paul	57	2,505
Minneapolis	354	4,424	Minneapolis	287	2,570
Toledo	145	4,454	Oakland	534	2,589
Kansas City, Mo	337	4,623	Omaha	34	2,618
Omaha	62	4,791	Louisville	71	2,620
Dayton	55	4,815	Memphis	85	2,646
Portland, Oreg	261	5,157	Houston	97	2,972
St. Paul	136	5,218	Portland, Oreg	203	3,139
Indianapolis	248	5,226	Birmingham	13	3,192
Akron	219	5,629	Seattle	836	3,326
Columbus	240	5,862	Jersey City	128	3,383
Louisville	184	5,953	Dayton	24	3,427
Rochester	121	6,033	Akron	51	3,554
Syracuse	165	6,255	Cincinnati	194	3,716
Denver	157	6,428	Syracuse	8	3,750
Cincinnati	536	6,574	Newark	97	4,064
Newark	36	7,501	Columbus	41	4,968
Providence	128	9,110	Providence	55	5,364
Total (27 cities)	6,827	4,581	Total (27 cities)	3,616	2,902
2-family dwellings [1]			*All classes of dwellings*		
Portland, Oreg	0	0	Birmingham	112	2,440
Rochester	0	0	Dallas	559	2,522
Seattle	4	875	San Antonio	607	2,536
Atlanta	73	1,319	Atlanta	403	2,694
Birmingham	3	1,500	Oakland	807	3,087
San Antonio	61	2,539	Memphis	640	3,204
Dallas	174	2,557	Seattle	1,522	3,358
Kansas City, Mo	20	2,950	Kansas City, Mo	644	3,489
Toledo	39	2,964	Minneapolis	723	3,560
Denver	18	3,028	New Orleans	122	3,582
Akron	10	3,080	Jersey City	152	3,612
Oakland	31	3,119	Toledo	247	3,666
Indianapolis	103	3,239	Omaha	104	4,121
Minneapolis	82	3,300	Houston	1,216	4,158
Memphis	106	3,471	Portland, Oreg	464	4,274
New Orleans	10	3,780	Dayton	83	4,376
Houston	218	3,844	St. Paul	205	4,476
Dayton	4	4,025	Denver	286	4,516
Syracuse	69	4,136	Indianapolis	363	4,562
Jersey City	24	4,833	Louisville	263	5,062
Cincinnati	76	5,269	Akron	280	5,160
Omaha	8	5,313	Rochester	149	5,235
St. Paul	12	5,420	Newark	182	5,325
Providence	95	5,603	Syracuse	242	5,568
Columbus	14	5,829	Columbus	295	5,736
Newark	49	6,223	Cincinnati	806	5,763
Louisville	8	6,250	Providence	278	7,171
Total (27 cities)	1,311	3,664	Total (27 cities)	11,754	3,962

[1] Includes 1-family and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

In the 27 cities of this population group 6,827 families were provided for in 1-family dwellings at an average cost of $4,581 per family. The lowest per family cost for single family dwellings was in Birmingham; the highest in Providence. In the former city the

cost per family was $2,368, and in the latter $9,110. There were marked differences in per family costs in some cities in the same locality. For example, the average cost for 1-family dwellings for which permits were issued in Toledo, Ohio, was $4,454, while in Cincinnati the average cost was $6,574 per family.

Two-family dwellings ranged in cost from $875 in Seattle, Wash., to $6,250 in Louisville. Only four such dwellings were erected in Seattle, however. The next lowest per family cost for 2-family dwellings was shown by Atlanta with $1,319.

San Antonio showed the lowest per family dwelling unit cost in the new multifamily dwellings for which permits were issued. The highest unit cost was shown in Providence. The range was from $1,670 to $5,364. Four cities in this group erected apartment houses at a dwelling unit cost of less than $2,000. Providence was the only city where family dwelling places in apartment houses cost over $5,000.

The average cost of all family dwelling units for which permits were issued in these 27 cities during the first six months of 1930 was $3,962. Dwelling places were provided for 11,754 families. In Birmingham the average cost of all dwelling units provided was $2,440. In Providence the average cost of all dwelling units was $7,171 per family. In four cities the cost per family dwelling unit averaged less than $3,000. In eight cities the cost was over $5,000 per family.

Building Operations in Principal Cities of the United States, First Half of 1930

IN THE August, 1930, issue of the Labor Review a brief statement was given regarding building permits issued in the first half of 1930 compared with those issued in the first half of 1929 for the 85 cities of the United States having an estimated population of 100,000 or over in 1929. The full report, including data for 1930 for the 6 additional cities which according to the 1930 census reached a population of 100,000, has now been completed and is presented below.[1]

The building-permit reports obtained by the bureau include only construction within the corporate limits of each city; suburban developments lying outside the boundaries of the city are not included. This suburban development would add largely to the total building in the metropolitan areas of some cities, especially as such outside territory is mainly residential in character.

The building costs reported are as stated by the builder on applying for his permit. They include the cost of the building only. No land costs are included.

The States of Massachusetts, Illinois, New York, New Jersey, and Pennsylvania, through their departments of labor, rendered material assistance to the bureau in the collection of data. Each of these departments issues periodic reports on building conditions in the State. Very helpful cooperation is also received by the bureau from the building officials in the cities scheduled. It was necessary to

[1] Earlier reports concerning building permits issued in the United States are published in Bul. Nos. 295, 318, 347, 368, 397, 424, 449, 469, and 500 of the Bureau of Labor Statistics. Monthly reports are also issued by the bureau in pamphlet form and in the Labor Review.

send agents of the bureau to only three cities to compile the data from the city records. In all the other cities the building officials reported by mail either direct to the Bureau of Labor Statistics or through the labor departments of the States in which they are located.

In the study of the several tables of this article the reader is cautioned to observe the difference in the number of cities included therein.

Table 1 shows, for the **91** cities having a population of 100,000 or more, the number of new buildings for which permits were issued during the first six months of 1930, the estimated cost of each of the different kinds of new buildings, the per cent that each kind forms of the total number, the per cent that the cost of each kind forms of the total cost, and the average cost per building.

TABLE 1.—NUMBER AND COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 91 CITIES, JANUARY 1 TO JUNE 30, 1930, BY KIND OF BUILDING

Kind of building	Number	Buildings for which permits were issued			
		Per cent of grand total	Estimated cost		
			Amount	Per cent of grand total	Average per building
Residential buildings					
1-family dwellings	24,734	31.0	$120,963,044	19.0	$4,891
2-family dwellings	3,306	4.1	26,037,973	4.1	7,876
1-family and 2-family dwellings with stores	509	.6	3,866,340	.6	7,596
Multifamily dwellings	1,388	1.7	75,916,149	11.9	54,695
Multifamily dwellings with stores	105	.1	5,126,200	.8	48,821
Hotels	30	(1)	11,501,275	1.8	383,376
Lodging houses	11	(1)	320,550	.1	29,141
All other	57	.1	9,882,981	1.6	173,386
Total	30,140	37.7	253,614,512	39.8	8,415
Nonresidential buildings					
Amusement buildings	560	.7	14,582,542	2.3	26,040
Churches	252	.3	14,130,330	2.2	56,073
Factories and workshops	1,089	1.4	45,599,746	7.2	41,873
Public garages	848	1.1	13,574,846	2.1	16,008
Private garages	35,283	44.2	13,390,058	2.1	380
Service stations	1,936	2.4	7,476,902	1.2	3,862
Institutions	92	.1	29,363,489	4.6	319,168
Office buildings	339	.4	85,091,641	13.4	251,008
Public buildings	151	.2	39,171,628	6.2	259,415
Public works and utilities	184	.2	13,688,807	2.1	74,396
Schools and libraries	269	.3	47,963,998	7.5	178,305
Sheds	3,891	4.9	1,808,408	.3	4,648
Stables and barns	94	.1	110,063	(1)	1,171
Stores and warehouses	3,471	4.3	55,144,949	8.7	15,887
All other	1,280	1.6	1,990,896	.3	1,555
Total	49,739	62.4	383,088,303	60.2	7,702
Grand total	79,879	100.0	636,702,815	100.0	7,971

[1] Less than one-tenth of 1 per cent.

In the 91 cities in the United States having a population of 100,000 or over, permits were issued for 79,879 new buildings, at an estimated cost of $636,702,815, during the first half of 1930. Of the number of new buildings, 30,140, or 37.7 per cent, were residential buildings, and 49,739, or 62.4 per cent, were nonresidential buildings.

The most numerous class of residential buildings were 1-family dwellings. According to permits issued in these 91 cities, there were 24,734 1-family dwellings to be erected, which is 31 per cent of the total number of new buildings. No other class of residential buildings accounted for as much as 5 per cent of the total number of new buildings.

Private garages were the most numerous class of nonresidential buildings, accounting for 44.2 per cent of the total number of new buildings. Of the large nonresidential buildings, more stores and warehouses were erected than any other kind, these commercial buildings accounting for 4.3 per cent of the total number of new buildings.

Of the estimated costs of new buildings, $253,614,512, or 39.8 per cent, was for residential buildings and $383,088,303, or 60.2 per cent, for nonresidential buildings. One-family dwellings accounted for 19 per cent of the total cost of all new buildings. Apartment houses formed the only other class in the residential group to account for over 10 per cent of the total expenditure for new building operations, expenditures for this class being 11.9 per cent of the total. In the nonresidential group, office buildings, with 13.4 per cent of the total estimated cost, outranked all other classes in expenditures. Stores and warehouses with 8.7 per cent, schools and libraries with 7.5 per cent, factories and workshops with 7.2 per cent, and public buildings with 6.2 per cent, were the only other classes of nonresidential buildings to account for more than 5 per cent of the total indicated expenditures for new buildings. The appropriations for amusement buildings and churches were nearly equal, the former class accounting for 2.3 per cent of the estimated cost of all new buildings and the latter, 2.2 per cent.

Buildings erected from public funds accounted for a sizable percentage of the total amount spent. All of the nearly $40,000,000 which was spent for public buildings was from public funds. Nearly $50,000,000 was spent for schools and libraries, by far the largest part of this amount being for public-school buildings. The expenditure for public works and utilities, over $13,500,000, is largely from public funds. These three items together account for 15.8 per cent of the total appropriations for the erection of new buildings.

The average cost of all new buildings for which permits were issued was $7,971. The average cost of the residential buildings was $8,415 and of the nonresidential buildings, $7,702. However, if we exclude private garages and sheds, which together accounted for 49.1 per cent of the total number of new buildings but only 2.4 per cent of the total estimated cost of new buildings, we find that the average cost of all other classes of nonresidential buildings was $58,030. One-family dwellings in these 91 cities average $4,891 each. The most expensive class of buildings was hotels, the average cost of the 30 new hotel buildings being $383,376. Five other classes of buildings averaged over $100,000 per building: Institutional buildings, $319,168 per building; public buildings, $259,415; office buildings, $251,008; schools and libraries, $178,305; and "all other" residential buildings, which include dormitories, Y. M. C. A. buildings, etc., $173,386 per building. Amusement buildings cost $26,040 each and churches $56,073 per building. The average cost of the 35,283 private garages was $380.

Comparison of 1929 and 1930

TABLE 2 shows the number and cost of the different kinds of the buildings for which permits were issued in the 85 identical cities for which figures are available for the first half of each year, 1929 and 1930, and the percentage of increase or decrease in the number and in the cost in the first half of 1930 as compared with 1929.

TABLE 2.—NUMBER AND COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 85 CITIES DURING FIRST HALF OF 1929 AND FIRST HALF OF 1930, BY KIND OF BUILDING

Kind of building	New buildings for which permits were issued during first half of—				Per cent of change, 1930, as compared with 1929	
	1929		1930			
	Number	Cost	Number	Cost	Number	Cost
Residential buildings						
1-family dwellings	43,320	$212,357,370	23,986	$117,812,744	−44.6	−44.5
2-family dwellings	6,488	49,049,636	3,235	25,666,573	−50.1	−47.7
1-family and 2-family dwellings with stores	839	8,280,967	503	3,823,740	−40.0	−53.8
Multifamily dwellings	4,034	353,284,280	1,347	75,238,244	−66.6	−78.7
Multifamily dwellings with stores	334	22,815,236	105	5,126,200	−68.6	−77.5
Hotels	181	243,345,689	26	10,759,275	−85.6	−95.6
Lodging houses	8	155,525	9	313,550	+12.5	+101.6
All other	55	21,056,713	48	9,860,776	−12.7	−53.2
Total	55,259	910,345,416	29,259	248,601,102	−47.1	−72.7
Nonresidential buildings						
Amusement buildings	279	19,342,518	534	13,950,952	+91.4	−27.9
Churches	254	13,688,491	238	13,965,805	−6.3	+2.0
Factories and workshops	1,358	57,046,617	1,056	45,130,846	−22.2	−20.9
Public garages	1,368	21,851,457	824	13,409,386	−39.8	−38.6
Private garages	47,823	17,390,325	34,418	13,172,190	−28.0	−24.3
Service stations	1,263	5,540,076	1,887	7,312,737	+49.4	+32.0
Institutions	73	15,561,325	91	29,314,139	+24.7	+88.4
Office buildings	443	116,550,050	333	84,409,391	−24.8	−27.6
Public buildings	92	45,997,305	145	38,898,153	+57.6	−15.4
Public works and utilities	220	25,655,346	178	13,119,543	−19.1	−48.9
Schools and libraries	227	45,223,629	258	47,307,623	+13.7	+4.6
Sheds	4,030	1,759,969	3,814	1,758,053	−5.4	−.1
Stables and barns	54	401,646	94	110,063	+74.1	−72.6
Stores and warehouses	4,544	121,051,138	3,385	54,443,304	−25.5	−55.0
All other	1,587	3,701,380	1,273	1,968,796	−19.8	−46.8
Total	63,615	510,761,272	48,528	378,270,981	−23.7	−25.9
Grand total	118,874	1,421,106,688	77,787	626,872,083	−34.6	−55.9

During the first half of 1930 permits were issued for 77,787 new buildings in these 85 cities. This is a decrease of 34.6 per cent from the 118,874 new buildings for which permits were issued during the first half of 1929.

Residential buildings decreased 47.1 per cent in number. There was a decrease in the number of all classes of residential buildings except lodging houses which is an inconsequential group.

Decreases in the number ranged from 12.7 per cent for "all other" residential buildings to 85.6 per cent for hotels. One-family dwellings decreased 44.6 per cent and apartment houses 66.6 per cent.

Nonresidential buildings as a whole decreased 23.7 per cent in number. There was a decrease in the number in nine classes of nonresidential buildings and an increase in six classes. The decreases ranged from 6.3 per cent for churches to 39.8 per cent for public garages; the increases, from 13.7 per cent for schools and libraries to 91.4 per cent for amusement buildings.

The estimated cost of new buildings for which permits were issued during the first half of 1930 was $626,872,083. This is a decrease of 55.9 per cent in indicated expenditures comparing the first half of 1930 with the first half of 1929. The estimated cost of new residential buildings decreased 72.7 per cent. The indicated expenditures for all classes of new residential buildings showed a decrease except in the case of lodging houses. The largest decrease, 95.6 per cent, was shown for hotel buildings; the lowest, 44.5 per cent for 1-family dwellings. The estimated cost for new nonresidential buildings decreased 25.9 per cent. Eleven of the 15 classes of nonresidential buildings showed decreases in estimated cost comparing the first half of 1930 with the first half of 1929, which decreases ranged from 0.1 per cent in the case of sheds to 72.6 per cent in the case of stables and barns. Indicated expenditures for public buildings decreased 15.4 per cent. The increases in estimated costs in the other 4 classes of nonresidential buildings ranged from 2 per cent for churches to 88.4 per cent for institutional buildings.

Families Provided for 1929 and 1930

TABLE 3 shows the number and per cent of families provided for by each of the different kinds of dwellings for which permits were issued in the 85 identical cities during the first half of 1929 and the first half of 1930.

TABLE 3.—NUMBER AND PER CENT OF FAMILIES TO BE HOUSED IN NEW DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 85 IDENTICAL CITIES DURING FIRST HALF OF 1929 AND FIRST HALF OF 1930, BY KIND OF BUILDING

Kind of dwelling	Number of dwellings for which permits were issued		Families provided for			
			Number		Per cent	
	First half 1929	First half 1930	First half 1929	First half 1930	First half 1929	First half 1930
1-family dwellings	43,320	23,986	43,320	23,986	30.5	45.7
2-family dwellings	6,488	3,235	12,976	6,470	9.1	12.3
1-family and 2-family dwellings with stores	339	503	1,338	673	.9	1.3
Multifamily dwellings	4,034	1,347	79,266	20,032	55.8	38.2
Multifamily dwellings with stores	334	105	5,166	1,329	3.6	2.5
Total	55,015	29,176	142,066	52,490	100.0	100.0

During the first half of 1929 dwelling accommodations were provided in new buildings for 142,066 families in the 85 cities. During the first half of 1930 new dwelling accommodations were provided for only 52,490 families. This is a decrease of 63.1 per cent. While the number of families provided for in each class of dwelling showed a decrease comparing the first half of 1930 with the first half of 1929,

the decrease in the number of families provided for in apartment houses was much greater than in any other class of dwelling.

During the first half of 1929, 55.8 per cent of the total number of new dwelling units were provided for in apartment houses, but during the first half of 1930, only 38.2 per cent. New 1-family dwellings provided for only 30.5 per cent of the total families provided for during the first half of 1929, but provided for 45.7 per cent during the first half of 1930. However, the total number of 1-family dwellings for which permits were issued decreased from more than 43,000 to slightly less than 24,000 comparing the latter period with the former. Only a little over half as many families were provided for in 2-family dwellings during the first half of 1930 as during the first half of 1929.

Table 4 shows the number and percentage distribution of families provided for in the different kinds of dwellings in the 65 identical cities from which reports were received for the first six months of each year 1922 to 1930. For convenience, 1-family dwellings and 2-family dwellings with stores, are grouped with 2-family dwellings, and multifamily dwellings with stores are grouped with multifamily dwellings.

TABLE 4.—NUMBER AND PER CENT OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF DWELLINGS IN 65 IDENTICAL CITIES, FIRST HALF OF 1922 TO 1930, INCLUSIVE

Period	Number of families provided for in—				Per cent of families provided for in—		
	1-family dwellings	2-family dwellings [1]	Multi-family dwellings [2]	All classes of dwellings	1-family dwellings	2-family dwellings [1]	Multi-family dwellings [2]
First half of—							
1922	63,892	32,321	51,006	147,249	43.4	22.0	34.6
1923	77,875	39,314	77,826	195,015	39.9	20.2	39.9
1924	82,514	50,904	69,619	203,037	40.6	25.1	34.3
1925	87,783	39,320	80,291	207,394	42.3	19.0	38.7
1926	71,818	26,727	100,201	198,746	36.1	13.4	50.4
1927	57,899	24,204	95,448	177,551	32.6	13.6	53.8
1928	50,724	19,261	111,268	181,252	28.0	10.6	61.2
1929	36,237	12,815	81,205	130,257	27.8	9.8	62.3
1930	20,410	6,101	19,930	46,441	43.9	13.1	42.9

[1] Includes 1-family and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Fewer families were accommodated with new dwellings in these 65 cities during the first half of 1930 than for the same period in any year since the collection of these data by the bureau, and this is true of each of the three types of buildings. In these 65 cities only 46,441 new dwelling units were provided in new buildings during the first half of 1930, as compared with more than 130,000 in the same period of 1929. A larger proportion of families was provided for in 1-family dwellings during the first half of 1930 than during the corresponding period of any of the other years under discussion. During the first six months of this year 43.9 per cent of the new family dwelling units were in single family dwellings, compared with 42.9 per cent in apartment houses. During the first half of 1929 the percentage of families provided for in 1-family dwellings was 27.8 and in apartment houses was 62.3. These changes, as the table

indicates, are caused by the far greater shrinkage in the multifamily dwellings than in the 1-family dwellings. Two-family dwellings provided for 13.1 per cent of the new family dwelling accommodations during the first half of 1930, as compared with 9.8 per cent in 1929.

Building Trend

TABLE 5 shows the total number and estimated cost of all buildings for which permits were issued in the **65** identical cities from which reports were received for the first half of each year 1922 to 1930, inclusive. Unfortunately, semiannual figures are not available for the other cities included in preceding tables.

TABLE 5.—NUMBER AND ESTIMATED COST OF ALL BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 65 IDENTICAL CITIES, FIRST HALF OF 1922 TO 1930, INCLUSIVE

Period	Number of buildings		Estimated cost	
	Number	Index number	Cost	Index number
First half of—				
1922	243,479	100.0	$1,062,464,771	100.0
1923	283,289	116.4	1,418,779,382	133.5
1924	299,769	123.1	1,518,088,421	142.9
1925	289,014	118.7	1,620,413,012	152.5
1926	254,564	104.6	1,539,207,242	144.9
1927	237,853	97.7	1,443,232,520	135.8
1928	216,509	88.9	1,462,560,722	137.7
1929	182,379	74.9	1,479,460,210	139.2
1930	146,410	60.1	679,064,355	63.9

During the first half of 1930 permits were issued for 146,410 buildings. This is 39.9 per cent less than the 243,479 buildings for which permits were issued during the first half of 1922 and is the lowest number of buildings projected during any of the six-month periods under discussion. The peak in the number of buildings for which permits were issued was reached during the first half of 1924 when the index number stood at 123.1. There has been a steady decline since that time.

The estimated cost of all building operations in these 65 cities during the first half of 1930 was $679,064,355. This estimated expenditure was less than during the like period of any other year from 1922 to 1930. The estimated cost of total building operations in these cities reached the peak of $1,620,413,012 during the first half of 1925. During that period the index number of building expenditures reached 152.5. There was a decline until 1928 when the index number stood at 137.7. During the first half of 1929 there was a slight rise to 139.2 and then a drop of more than 50 per cent, to 63.9, during the first half of 1930.

Per Capita Expenditures for Buildings

TABLE 6 shows the per capita expenditure for new buildings of all kinds; for repairs, additions, and alterations to old buildings; for the two items combined; and for new housekeeping dwellings, in the first half of 1929, in the **91** cities having a population of 100,000 or over according to the census of 1930.

TABLE 6.—TOTAL AND PER CAPITA EXPENDITURES FOR NEW BUILDINGS AND FOR REPAIRS, AND FAMILIES PROVIDED FOR,

TABLE 6.—TOTAL AND PER CAPITA EXPENDITURES FOR NEW BUILDINGS AND FOR REPAIRS, AND FAMILIES PROVIDED FOR, 91 CITIES, IN FIRST HALF OF 1930

City and State	Expenditure for new buildings	Expenditure for repairs and additions	Total expenditures first half of—		Expenditure for new housekeeping dwellings only	Estimated population, Apr. 1, 1930	Families provided for		Per capita expenditure			Rank of city	Per capita expenditure for housekeeping dwellings only
			1930	1929			Number	Ratio per 10,000	For new buildings	For repairs and additions	Total		
Akron, Ohio	$5,762,920	$516,658	$6,279,578	$11,092,828	$1,444,730	253,653	280	11.0	$22.72	$2.04	$24.76	17	$5.70
Albany, N. Y	1,926,272	905,655	2,831,927	6,444,964	1,047,000	127,358	106	8.3	15.12	7.11	22.24	25	8.22
Atlanta, Ga	4,298,090	705,876	5,003,966	8,382,978	1,085,580	266,557	403	15.1	16.12	2.65	18.77	35	4.07
Baltimore, Md	12,593,400	4,059,800	16,653,200	16,817,300	4,609,800	789,921	986	12.5	15.94	5.14	21.08	27	5.84
Birmingham, Ala	1,149,931	364,547	1,514,478	5,848,337	273,332	257,657	112	4.4	4.46	1.41	5.88	86	1.06
Boston, Mass	9,245,237	4,629,664	13,874,901	30,414,050	3,454,700	783,451	778	9.9	11.80	5.91	17.71	40	4.41
Bridgeport, Conn	1,128,415	269,925	1,398,340	2,281,680	660,000	147,206	147	10.0	7.67	1.83	9.50	75	4.48
Buffalo, N. Y	5,564,235	685,380	6,249,615	7,733,929	1,774,725	572,217	563	9.8	9.72	1.20	10.92	69	3.10
Cambridge, Mass	2,117,682	830,258	2,947,940	6,986,398	452,643	113,650	96	8.4	18.63	7.31	25.94	15	3.98
Camden, N. J	1,172,650	240,075	1,412,725	1,767,618	266,900	117,172	68	5.8	10.01	2.05	12.06	66	2.28
Canton, Ohio	954,717	121,320	1,076,037	1,872,775	332,400	105,524	69	6.5	9.05	1.15	10.20	73	3.15
Chattanooga, Tenn	1,530,699	363,677	1,894,376	(1)	530,615	119,539	145	12.1	12.81	3.04	15.85	49	4.44
Chicago, Ill	38,539,750	3,414,167	41,953,917	118,898,940	11,007,600	3,373,753	1,546	4.6	11.42	1.01	12.44	65	3.26
Cincinnati, Ohio	21,101,847	789,417	21,891,264	14,013,060	4,644,927	449,331	806	17.9	46.96	1.76	48.72	3	10.34
Cleveland, Ohio	11,099,075	2,853,150	13,952,225	18,539,750	4,061,300	901,482	798	8.9	12.31	3.16	15.48	50	4.51
Columbus, Ohio	2,661,200	392,150	3,053,350	6,024,100	1,692,100	289,056	295	10.2	9.21	1.36	10.56	71	5.85
Dallas, Tex	3,175,890	954,181	4,130,071	5,313,407	1,409,925	260,397	559	21.5	12.20	3.66	15.86	48	5.41
Dayton, Ohio	2,853,448	479,709	3,333,157	3,443,175	363,197	200,225	83	4.1	14.25	2.40	16.65	44	1.81
Denver, Colo	2,864,400	979,100	3,843,500	11,892,350	1,291,650	287,644	286	9.9	9.96	3.40	13.36	60	4.49
Des Moines, Iowa	2,461,782	139,402	2,601,184	1,431,133	455,350	142,469	86	6.0	17.28	0.98	18.26	36	3.20
Detroit, Mich	23,569,153	3,917,015	27,486,168	55,855,545	11,679,616	1,564,397	2,505	16.0	15.07	2.50	17.57	42	7.47
Duluth, Minn	196,450	420,450	616,900	1,141,102	115,155	101,231	35	3.5	1.94	4.15	6.09	85	1.14
Elizabeth, N. J	1,455,400	27,000	1,482,400	(1)	522,000	114,551	154	13.0	12.71	0.24	12.94	62	4.56
El Paso, Tex	1,576,210	242,459	1,818,669	1,476,460	853,308	101,975	267	26.2	15.46	2.38	17.83	39	8.37
Erie, Pa	1,171,651	673,791	1,845,442	(1)	375,100	115,875	86	7.4	10.11	5.81	15.93	47	3.24
Evansville, Ind	670,997	276,212	947,209	(1)	381,650	103,151	104	10.1	6.50	2.68	9.18	79	3.70
Fall River, Mass	420,281	175,845	596,126	273,390	78,650	114,348	21	1.8	3.68	1.54	5.21	87	0.69
Flint, Mich	1,906,149	342,295	2,248,444	6,606,687	1,139,430	156,422	269	17.2	12.19	2.19	14.37	55	7.28
Fort Wayne, Ind	1,529,912	248,757	1,778,669	2,995,596	970,330	115,121	201	17.5	13.29	2.16	15.45	51	8.43
Fort Worth, Tex	4,127,354	457,768	4,585,122	6,373,944	1,117,413	160,892	318	19.8	25.65	2.85	28.50	12	6.95
Grand Rapids, Mich	1,260,700	425,950	1,686,650	3,218,050	568,150	168,234	151	9.0	7.49	2.53	10.03	74	3.38
Hartford, Conn	3,191,625	713,455	3,905,080	11,855,414	477,500	161,372	34	2.1	19.78	4.42	24.20	19	2.96
Houston, Tex	8,612,505	175,762	8,788,267	18,252,723	5,056,630	289,428	1,216	42.0	29.76	0.61	30.36	10	17.47
Indianapolis, Ind	3,864,571	673,643	4,538,214	8,007,526	1,655,890	362,564	363	10.0	10.66	1.86	12.52	63	4.57
Jacksonville, Fla	759,940	449,730	1,209,670	2,822,600	276,000	129,682	109	8.4	5.86	3.47	9.33	78	2.13
Jersey City, N. J	6,168,267	404,272	6,572,539	10,058,739	549,000	316,914	152	4.8	19.46	1.28	20.74	28	1.73

[1] Data not reported.

TABLE 6.—TOTAL AND PER CAPITA EXPENDITURES FOR NEW BUILDINGS AND FOR REPAIRS, AND FAMILIES PROVIDED FOR, 91 CITIES, IN FIRST HALF OF 1930—Continued

City and State	Expenditure for new buildings	Expenditure for repairs and additions	Total expenditures first half of—		Expenditure for new housekeeping dwellings only	Estimated population, Apr. 1, 1930	Families provided for		Per capita expenditure			Rank of city	Per capita expenditure for housekeeping dwellings only
			1930	1929			Number	Ratio per 10,000	For new buildings	For repairs and additions	Total		
Kansas City, Kans	$720,250	$51,980	$772,230	$896,185	$280,950	122,327	104	8.5	$5.89	$0.42	$6.31	84	$2.30
Kansas City, Mo	7,119,800	1,021,050	8,140,850	6,056,400	2,247,000	392,640	644	16.4	18.13	2.60	20.73	29	5.72
Knoxville, Tenn	1,768,271	131,112	1,899,383	3,092,722	446,709	105,797	178	16.8	16.71	1.24	17.95	38	4.22
Long Beach, Calif	5,711,755	363,365	6,075,120	11,743,155	3,152,450	141,390	1,167	82.5	40.40	2.57	42.97	5	22.30
Los Angeles, Calif	33,799,645	5,913,256	39,712,901	54,071,599	16,542,516	1,231,730	5,812	47.2	27.44	4.80	32.24	8	13.43
Louisville, Ky	4,471,440	449,625	4,921,065	7,953,405	1,331,300	307,808	263	8.5	14.53	1.46	15.99	46	4.33
Lowell, Mass	119,350	258,234	377,584	419,650	78,950	100,300	20	2.0	1.19	2.57	3.76	91	0.79
Lynn, Mass	1,988,927	333,925	2,322,852	2,536,381	256,500	102,327	52	5.1	19.44	3.26	22.70	23	2.51
Memphis, Tenn	5,550,620	1,005,397	6,556,017	4,590,496	2,050,530	252,049	640	25.4	22.02	3.99	26.01	14	8.13
Miami, Fla	705,760	432,068	1,137,828	1,898,508	332,750	110,025	65	5.9	6.41	3.93	10.34	72	3.02
Milwaukee, Wis	11,523,339	1,568,768	13,092,107	16,289,312	3,430,575	568,962	894	15.7	20.25	2.76	23.01	22	6.03
Minneapolis, Minn	4,627,220	1,739,635	6,366,855	14,426,185	2,574,155	462,611	723	15.6	10.00	3.76	13.76	58	5.56
Nashville, Tenn	3,517,305	286,774	3,804,079	3,710,460	587,925	153,153	188	12.3	22.97	1.87	24.84	16	3.84
Newark, N. J	5,102,782	1,553,765	6,656,497	12,990,016	969,200	444,170	182	4.1	11.49	3.50	14.99	52	2.18
New Bedford, Mass	394,115	134,745	528,860	355,740	78,500	112,804	12	1.1	3.49	1.19	4.69	88	0.70
New Haven, Conn	3,297,373	368,724	3,666,097	4,178,732	790,800	162,650	149	9.2	20.27	2.27	22.54	24	4.86
New Orleans, La	1,501,255	588,520	2,089,775	7,612,786	436,980	455,792	122	2.7	3.29	1.29	4.58	89	0.96
New York City, N. Y	171,630,082	31,345,152	202,975,234	694,118,064	66,309,910	6,958,792	13,675	19.7	24.66	4.50	29.17	11	9.53
Norfolk, Va	1,065,463	135,609	1,201,072	1,634,493	537,936	127,808	140	11.0	8.34	1.06	9.40	76	4.21
Oakland, Calif	4,681,752	836,711	5,518,463	7,705,590	2,491,100	284,213	807	28.4	16.47	2.94	19.42	32	8.76
Oklahoma City, Okla	9,285,587	643,268	9,928,855	9,981,140	3,960,925	182,845	1,106	60.5	50.78	3.52	54.30	2	21.66
Omaha, Nebr	3,070,550	516,294	3,586,844	2,357,952	428,550	214,184	104	4.9	14.34	2.41	16.75	43	2.00
Paterson, N. J	741,768	417,689	1,159,457	2,874,284	302,200	138,267	68	4.9	5.36	3.02	8.39	82	2.19
Peoria, Ill	1,687,750	304,265	1,992,015	(1)	1,004,600	104,788	232	22.1	16.11	2.90	19.01	34	9.59
Philadelphia, Pa	29,900,840	4,668,500	34,569,340	58,533,385	5,542,700	1,961,458	1,196	6.1	15.24	2.38	17.62	41	2.83
Pittsburgh, Pa	7,233,175	2,729,699	9,962,874	17,828,478	3,944,350	669,631	837	12.5	10.80	4.08	14.88	53	5.89
Portland, Oreg	4,164,050	1,227,135	5,391,185	8,603,730	1,983,235	299,122	464	15.5	13.92	4.10	18.02	37	6.63
Providence, R. I	4,639,375	1,362,470	6,001,845	7,793,700	1,993,400	251,029	278	11.1	18.48	5.43	23.91	20	7.94
Reading, Pa	1,163,355	312,189	1,475,544	4,049,183	407,800	110,289	70	6.3	10.55	2.83	13.38	59	3.70
Richmond, Va	2,175,061	477,067	2,652,128	6,933,446	707,050	182,883	157	8.6	11.89	2.61	14.50	54	3.87
Rochester, N. Y	1,990,773	941,400	2,932,173	8,239,440	779,963	325,019	149	4.6	6.13	2.90	9.02	80	2.40
St. Louis, Mo	7,624,005	1,654,690	9,278,695	15,723,135	2,921,390	817,334	786	9.6	9.33	2.02	11.35	68	3.57
St. Paul, Minn	6,238,882	842,848	7,081,730	4,908,050	917,520	270,883	205	7.6	23.03	3.11	26.14	13	3.39
Salt Lake City, Utah	1,629,590	227,170	1,856,760	3,359,501	1,014,600	140,058	302	22.0	11.64	1.62	13.26	61	7.24
San Antonio, Tex	4,570,533	414,197	4,984,730	11,211,703	1,539,145	254,562	607	23.8	17.95	1.63	19.58	31	6.05
San Diego, Calif	2,515,439	353,174	2,868,613	5,320,925	1,579,600	147,897	480	32.5	17.01	2.39	19.40	33	10.68
San Francisco, Calif	10,834,041	1,559,520	12,393,561	18,076,778	4,782,276	625,974	1,152	18.4	17.31	2.49	19.80	30	7.64
Scranton, Pa	1,106,605	238,011	1,344,616	1,814,542	113,990	143,428	31	2.2	7.72	1.66	9.37	77	.79
Seattle, Wash	14,499,525	1,927,080	16,426,605	20,508,300	5,111,585	363,134	1,522	41.9	39.93	5.31	45.24	4	14.07
					86,000	108,604	27	2.6	2.73	1.54	4.27	90	.83

Scranton, Pa	1,106,605	238,011	1,344,616	1,814,542	113,990	143,428	31	2.2	7.72	1.66	9.37	77	.79
Seattle, Wash	14,499,525	1,927,080	16,426,605	20,508,300	5,111,585	363,134	1,522	41.9	39.93	5.31	45.24	4	14.07
Somerville, Mass	282,940	159,654	442,594	1,897,965	86,000	103,604	27	2.6	2.73	1.54	4.27	90	.83
Spokane, Wash	1,005,019	329,129	1,334,148	2,024,169	652,675	115,514	176	15.2	8.70	2.85	11.55	67	5.65
Springfield, Mass	1,705,763	400,780	2,106,543	3,206,681	586,700	149,861	138	9.2	11.38	2.67	14.06	57	3.91
Syracuse, N. Y	2,152,300	425,110	2,577,410	6,001,389	1,347,500	207,007	242	11.7	10.40	2.05	12.45	64	6.51
Tacoma, Wash	2,433,790	204,090	2,637,880	2,554,735	744,000	106,837	230	21.5	22.78	1.91	24.69	18	6.96
Tampa, Fla	716,077	180,553	896,630	1,354,690	82,630	100,910	48	4.8	7.10	1.79	8.89	81	.82
Toledo, Ohio	5,731,060	451,359	6,182,419	6,920,606	905,380	290,787	247	8.5	19.71	1.55	21.26	26	3.11
Trenton, N. J	1,445,308	309,230	1,754,538	1,723,526	131,800	122,610	28	2.3	11.79	2.52	14.31	56	1.07
Tulsa, Okla	4,122,150	209,820	4,331,970	6,911,778	2,203,565	141,281	503	35.6	29.18	1.49	30.66	9	15.60
Utica, N. Y	477,490	187,540	665,030	1,098,635	261,450	102,633	40	3.9	4.65	1.83	6.48	83	2.55
Washington, D. C	26,460,773	4,061,643	30,522,416	38,547,655	8,722,250	485,716	1,090	22.4	54.48	8.36	62.84	1	17.96
Wichita, Kans	3,314,235	288,069	3,602,304	[1]	1,428,240	109,882	444	4.0	30.18	2.62	32.80	6	13.00
Wilmington, Del	3,003,712	432,410	3,436,122	3,786,622	952,700	104,941	186	17.7	28.62	4.12	32.74	7	9.08
Worcester, Mass	2,461,776	721,689	3,183,465	3,960,430	827,125	196,395	154	7.8	12.53	3.67	16.21	45	4.21
Yonkers, N. Y	2,744,590	423,725	3,168,315	14,876,279	1,956,750	135,123	233	17.2	20.31	3.14	23.45	21	14.48
Youngstown, Ohio	1,595,669	213,730	1,809,399	2,746,132	385,030	170,004	89	5.2	9.39	1.26	10.64	70	2.26
Total	636,702,815	111,652,127	748,354,942	1,570,145,411	231,909,706	36,077,607	53,655	14.9	17.65	3.09	20.74	-------	6.43

[1] Data not reported.

The 91 cities of the United States which, according to the 1930 census, had a population of 100,000 or over have an aggregate population of 36,077,607. According to permits issued in these cities the estimated cost of all building operations was $748,354,942 during the first half of 1930. This is at the rate of $20.74 per capita. Of this amount $17.65 was for new buildings and $3.09 for repairs and alterations to old buildings. Of the amount spent for new buildings $6.43 was for new housekeeping dwellings. The five leading cities in per capita expenditure were, Washington, D. C., $62.84; Oklahoma City, Okla., $54.30; Cincinnati, Ohio, $48.72; Seattle, Wash., $45.24; and Long Beach, Calif., $42.97.

Accommodations were provided in new buildings during this period for 53,655 families, which is at the rate of 14.9 families to each 10,000 of the population of these 91 cities.

The figures showing families provided for per 10,000 of population are based on the population given in the preliminary reports of the 1930 census.

The following cities were the leading builders of homes during the first six months of 1929 and 1930.

First half of 1929		First half of 1930	
Long Beach	170. 3	Long Beach	82. 5
Yonkers	119. 3	Oklahoma City	60. 5
New York	80. 0	Los Angeles	47. 2
Flint	75. 7	Houston	42. 0
Tulsa	64. 4	Seattle	41. 9

Following is a list of the five cities leading as to total expenditures for all classes of buildings during the first half of each year 1922 to 1930.

1922	
New York City	$339, 143, 976
Chicago	108, 699, 025
Los Angeles	59, 459, 250
Philadelphia	52, 429, 145
Detroit	40, 650, 143
1923	
New York City	$427, 633, 386
Chicago	189, 914, 112
Los Angeles	93, 889, 185
Philadelphia	75, 217, 095
Detroit	61, 616, 302
1924	
New York City	$548, 161, 458
Chicago	166, 436, 214
Detroit	87, 195, 800
Los Angeles	78, 828, 738
Philadelphia	72, 573, 485
1925	
New York City	$461, 513, 809
Chicago	204, 239, 810
Detroit	89, 562, 885
Philadelphia	85, 884, 680
Los Angeles	83, 175, 457
1926	
New York City	$510, 263, 696
Chicago	183, 577, 891
Detroit	96, 204, 092
Philadelphia	70, 379, 825
Los Angeles	63, 161, 395
1927	
New York City	$490, 119, 588
Chicago	210, 210, 475
Detroit	78, 742, 327
Philadelphia	61, 683, 600
Los Angeles	58, 192, 977
1928	
New York City	$557, 561, 891
Chicago	184, 650, 200
Detroit	65, 175, 361
Philadelphia	63, 195, 840
Los Angeles	52, 002, 570
1929	
New York City	$694, 118, 064
Chicago	118, 898, 940
Philadelphia	58, 533, 385
Detroit	55, 855, 545
Los Angeles	54, 071, 599
1930	
New York City	$694, 118, 064
Chicago	41, 953, 917
Los Angeles	39, 712, 901
Philadelphia	34, 569, 340
Washington	30, 522, 416

LABOR TURNOVER

Labor Turnover in American Factories, July, 1930

THE Bureau of Labor Statistics presents herewith the labor-turnover indexes for the month of July for manufacturing as a whole and for eight separate manufacturing industries. The indexes for manufacturing as a whole are made up from reports received from representative plants, employing nearly 1,500,000 people in over 75 different industries. The number of firms reporting to the bureau in the eight industries for which separate indexes are shown employ at least 25 per cent of the wage earners in such industries, as shown by the Census of Manufactures of 1927.

TABLE 1.—AVERAGE LABOR-TURNOVER RATES IN SELECTED FACTORIES IN 75 INDUSTRIES [1]

[The rate is per 100 employees on the pay roll. The monthly rate is the rate for the calendar month. The equivalent annual rate is the rate for the month expressed as an annual rate]

A.—Monthly Rates

Month	Separation rates								Accession rate		Net turnover rate [3]	
	Quit		Lay-off		Discharge		Total [2]					
	1929	1930	1929	1930	1929	1930	1929	1930	1929	1930	1929	1930
January	2.26	1.11	0.35	1.04	0.45	0.24	3.06	2.39	4.98	2.01	3.06	2.01
February	2.28	1.23	.36	1.06	.46	.25	3.20	2.53	4.36	2.06	3.20	2.06
March	3.12	1.38	.48	1.03	.57	.30	4.17	2.71	5.20	1.95	4.17	1.95
April	3.56	1.45	.45	1.16	.57	.27	4.58	2.88	5.77	2.00	4.58	2.00
May	3.46	1.50	.48	1.18	.48	.26	4.42	2.94	5.09	2.10	4.42	2.10
June	3.25	1.22	.44	1.12	.51	.20	4.20	2.54	5.01	1.62	4.20	1.62
July	3.03	1.00	.42	1.31	.49	.18	3.94	2.49	5.21	1.48	3.94	1.48
August	3.26		.41		.45		4.12		4.61		4.12	
September	3.14		.52		.50		4.16		4.91		4.16	
October	2.42		.80		.40		3.62		3.91		3.62	
November	1.59		1.26		.30		3.15		1.95		1.95	
December	1.08		1.21		.20		2.49		1.24		1.24	
Average	**2.71**		**.60**		**.45**		**3.76**		**4.35**		**3.76**	

B.—Equivalent Annual Rates

January	26.7	13.1	4.2	12.2	5.3	2.8	36.2	28.1	58.6	23.7	36.2	23.7
February	31.0	16.0	4.7	13.8	6.0	3.2	41.7	33.0	56.9	26.9	41.7	26.9
March	36.8	16.3	5.7	12.1	6.7	3.5	49.2	31.9	61.2	23.0	49.2	23.0
April	43.3	17.7	5.5	14.1	6.9	3.3	55.7	35.1	70.2	24.3	55.7	24.3
May	40.8	17.7	5.7	13.9	5.6	3.1	52.1	34.7	59.9	24.7	52.1	24.7
June	39.5	14.8	5.4	13.6	6.2	2.4	51.1	30.8	60.9	19.7	51.1	19.7
July	35.7	11.8	5.0	15.4	5.8	2.1	46.5	29.3	61.4	17.4	46.5	17.4
August	38.4		4.8		5.3		48.5		54.3		48.5	
September	38.2		6.3		6.1		50.6		59.7		50.6	
October	28.5		9.4		4.7		42.8		46.0		42.8	
November	19.4		15.3		3.7		38.4		23.7		23.7	
December	12.7		14.2		2.4		29.3		14.6		14.6	
Average	**32.6**		**7.2**		**5.4**		**45.2**		**52.3**		**45.2**	

[1] The form of average used is the unweighted median of company rates.
[2] Arithmetic sum of quit, lay-off, and discharge rates.
[3] The net turnover rate is the accession rate when it is lower than the separation rate, and the separation rate when it is lower than the accession rate.

The form of average used in the following tables is the unweighted median of company rates. In determining a median rate the rates for the several establishments are arranged in order from lowest to highest. The rate falling in the center of this arrangement of rates is the median. In other words, it is a rate which has as many rates above as below. Since it is an unweighted form of average the size of the different establishments reporting is not considered, nor are the deviations from the median. The number of employees used is the average number on the pay roll during the month of July. Table 1 shows for all industries the total separation rate subdivided into the quit, lay-off, and discharge rates, together with the accession rate, expressed both on a monthly basis and on an equivalent annual basis.

The bureau also presents, in addition to the separation rates and the accession rate, the net turnover rate. The net turnover rate means the rate of replacement. It is the number of positions that are vacated and filled per 100 employees. The net turnover rate is the same as the separation rate in a plant that is increasing its force and the same as the accession rate when a plant is reducing the number of its employees.

Comparing July with June, 1930, there was a lower quit rate, discharge rate, and accession rate during July than during the previous month. In contrast, the lay-off rate increased. The total separation rate for the month of July was 2.49 and the accession rate was 1.48. Comparing July, 1930, with July, 1929, we find that the July, 1930, quit rate was less than one-third that of the same month of the previous year. In contrast, the lay-off rate was three and one-half times as great as a year ago. The discharge rate was lower during July, 1930, than during July, 1929. The accession rate, that is, the hiring rate, was over three and one-half times greater during July, 1929, than during July, 1930.

Table 2 shows the quit, discharge, lay-off, accession, and net turnover rates for automobiles, boots and shoes, cotton manufacturing, iron and steel, sawmills, and slaughtering and meat packing, for the months of January to July, inclusive; for foundries and machine shops for the months of February to June, inclusive; and for the furniture industry for the months of April to July, inclusive, expressed both on a monthly and an equivalent annual basis.

TABLE 2.—AVERAGE LABOR TURNOVER RATES IN AUTOMOBILES, BOOTS AND SHOES, COTTON MANUFACTURING, FURNITURE, FOUNDRIES AND MACHINE SHOPS, IRON AND STEEL, SAWMILLS, AND SLAUGHTERING AND MEAT PACKING

[The rate is per 100 employees on the pay roll. The monthly rate is the rate for the calendar month, the equivalent annual rate is the rate for the month expressed as an annual rate]

Industry year and month, 1930	Separation rates								Accession rate		Net turnover rate [1]	
	Quits		Discharges		Lay-offs		Total					
	Monthly	Equivalent annual	Monthly	Equivalent annual	Monthly	Equivalent annual	Monthly	Equivalent annual	Monthly	Equivalent annual	Monthly	Equivalent annual
Automobiles:												
January	1.27	15.0	0.59	7.0	2.22	26.2	4.08	48.2	8.20	96.9	4.08	48.2
February	1.10	14.3	.15	1.9	1.86	24.3	3.11	40.5	3.40	44.3	3.11	40.5
March	1.56	18.4	.42	4.9	1.95	23.0	3.93	46.3	5.31	62.6	3.93	46.3
April	1.84	22.4	.33	4.0	2.70	32.8	4.87	59.2	4.06	49.4	4.06	49.4
May	1.39	16.4	.27	3.2	3.68	43.3	5.34	62.9	2.74	32.3	2.74	32.3
June	1.17	14.2	.25	3.0	3.82	46.5	5.24	63.7	1.91	23.2	1.91	23.2
July	1.00	11.8	.10	1.2	4.53	53.4	5.63	66.4	1.39	16.4	1.39	16.4
Boots and shoes:												
January	1.51	17.8	.46	5.4	.28	3.3	2.25	26.5	5.26	61.9	2.25	26.5
February	1.23	16.0	.39	5.1	.72	9.4	2.34	30.5	2.06	26.9	2.06	26.9
March	1.56	18.4	.36	4.2	.44	5.2	2.36	27.8	2.79	27.8	2.36	27.8
April	1.73	21.1	.32	3.9	1.01	12.3	3.06	37.3	2.11	25.7	2.11	25.7
May	1.45	17.1	.25	2.9	.71	8.4	2.41	28.4	2.16	25.4	2.16	25.4
June	1.25	15.2	.32	3.9	.87	10.6	2.44	29.7	2.17	26.4	2.17	26.4
July	.96	11.3	.28	3.3	.75	8.8	1.99	23.4	2.50	29.5	1.99	23.4
Cotton manufacturing:												
January	1.20	14.2	.11	1.3	.29	3.4	1.60	18.9	2.40	28.3	1.60	18.9
February	1.20	15.6	.19	2.5	.14	1.8	1.53	19.9	1.62	21.1	1.53	19.9
March	1.59	18.7	.28	3.3	.25	2.9	2.12	24.9	2.53	29.8	2.12	24.9
April	1.34	16.3	.09	1.1	.14	5.4	1.87	22.8	2.34	28.5	1.87	22.8
May	1.40	16.5	.20	2.3	.59	6.9	2.19	25.7	2.25	26.5	2.19	25.7
June	1.04	12.6	.16	1.9	.90	11.0	2.10	25.5	1.75	21.3	1.75	21.3
July	.95	11.2	.11	1.3	.67	7.9	1.73	20.4	1.44	17.0	1.44	17.0
Foundries and machine shops:												
February	.77	10.1	.05	.7	.80	10.4	1.62	21.2	2.26	29.5	1.62	21.2
March	1.12	13.2	.16	1.9	1.21	14.2	2.49	29.3	2.33	27.4	2.33	27.4
April	1.26	15.3	.09	1.1	1.12	13.6	2.47	30.0	2.42	29.5	2.42	29.5
May	1.23	14.5	.25	2.9	1.88	22.1	3.36	39.5	1.83	21.6	1.83	21.6
June	.76	9.3	.15	1.8	1.99	24.2	2.90	35.3	1.30	15.8	1.30	15.8
July	.54	6.4	.16	1.9	1.79	21.1	2.49	29.4	1.23	14.5	1.23	14.5
Furniture:												
April	1.22	14.8	.10	1.2	1.29	15.7	2.61	31.7	1.33	16.2	1.33	16.2
May	.76	8.9	.23	2.7	2.01	23.7	3.00	35.3	1.15	13.5	1.15	13.5
June	.39	4.7	.13	1.6	2.38	28.9	2.90	35.2	1.07	13.0	1.07	13.0
July	.42	4.9	.20	2.4	1.32	15.5	1.94	22.8	1.59	18.7	1.59	18.7
Iron and steel:												
January	1.37	16.1	.23	2.8	1.63	19.2	3.23	38.1	3.87	45.6	3.23	38.1
February	1.07	14.0	.18	2.4	.74	9.7	1.99	26.1	2.97	38.7	1.99	26.1
March	1.35	15.9	.20	2.3	.45	5.3	2.00	23.5	2.54	29.9	2.00	23.5
April	1.51	18.4	.19	2.3	.30	3.7	2.00	24.4	2.43	29.6	2.00	24.4
May	1.40	16.5	.17	2.0	.87	10.3	2.44	28.8	2.06	24.3	2.06	24.3
June	1.36	16.6	.23	2.8	.64	7.8	2.23	27.2	2.38	28.9	2.23	27.2
July	.90	10.6	.15	1.8	.73	8.6	1.78	21.0	1.37	16.1	1.37	16.1
Sawmills:												
January	1.57	18.5	.44	5.2	1.77	20.9	3.78	44.6	2.54	29.9	2.54	29.9
February	1.77	23.1	.18	2.4	1.81	23.6	3.76	49.1	4.38	57.1	3.76	49.1
March	1.90	22.4	.11	1.3	1.10	13.0	3.11	36.7	4.86	57.2	3.11	36.7
April	1.62	19.7	.19	2.3	1.21	14.7	3.02	36.7	4.46	54.3	3.02	36.7
May	1.33	15.7	.11	1.3	1.46	17.2	2.90	34.2	3.48	41.0	2.90	34.2
June	1.10	13.4	.23	2.8	2.16	26.3	3.49	42.5	2.78	33.8	2.78	33.8
July	.82	9.6	.24	2.8	2.28	26.9	3.34	39.3	3.65	43.0	3.34	39.3
Slaughtering and meat packing:												
January	1.60	18.9	.51	6.0	1.52	17.9	3.63	42.8	4.08	48.1	3.63	42.8
February	1.54	20.1	.45	5.9	4.33	56.5	6.32	82.5	2.92	38.2	2.92	38.1
March	1.89	22.3	.48	5.6	2.62	30.9	4.99	58.8	2.84	33.5	2.84	33.5
April	1.90	23.1	.46	5.6	1.91	23.3	4.27	52.0	4.28	52.1	4.27	52.0
May	2.38	28.0	.54	6.4	1.52	17.9	4.44	52.3	6.10	71.9	4.44	52.3
June	2.12	25.8	.44	5.3	1.13	13.7	3.69	44.8	6.12	74.4	3.69	44.8
July	1.52	17.9	.48	5.7	2.90	34.1	4.90	57.7	4.80	56.5	4.80	56.5

[1] The net turnover rate is the separation rate when this rate is lower than the accession rate, and the accession rate when it is lower than the separation rate.

The automobile separation rate was 5.63 compared with an accession rate of 1.39. Comparing the July rates with the June rates for the automotive industry we find that the quit, discharge, and accession rates were lower than a month ago. The lay-off rate, however, was higher.

The boot and shoe industry showed a higher accession rate than separation rate. The accession rate was 2.50 compared with a separation rate of 1.99. The quit, discharge, and lay-off rates were all lower during July than during June. The July accession rate, however, was higher than the June accession rate.

The total separation rate for cotton manufacturing was 1.73 compared with an accession rate of 1.44. The July quit, discharge, lay-off, and accession rates for the cotton manufacturing industry were all lower than the like rates for June.

Foundries and machine shops showed a total separation rate of 2.49 and an accession rate of 1.23. The July quit, lay-off, and accession rates were lower than the June quit, lay-off, and accession rates. The discharge rate was slightly higher in July than in June.

The accession rate in the furniture industry for July was 1.59, while the total separation rate was 1.94. Comparing July rates with June rates we see that the quit, discharge, and accession rates were higher this month than a month ago, and the lay-off rate was considerably lower.

In the iron and steel industry the total separation rate for July was 1.78 and the accession rate 1.37. All rates except the lay-off rate were lower during July than during June. The lay-off rate was slightly higher.

The sawmill industry showed a slightly higher accession than total separation rate, the accession rate being 3.65 and the total separation rate 3.34. The sawmill quit rate was lower during July than during June. The discharge, lay-off, and accession rates, however, were all higher during July than during June.

The slaughtering and meat-packing accession rate was 4.80 and the total separation rate 4.90. In comparing July rates with the June, the quit and the accession rates were found to be lower than last month, while the discharge and the lay-off rates were higher.

Slaughtering and meat packing was the only industry which had a higher quit rate than that for industry as a whole. The automobile quit rate exactly equaled the all-industry quit rate. The quit rate of boots and shoes, cotton manufacturing, foundries and machine shops, furniture, iron and steel, and sawmills was lower than the all-industry quit rate.

In comparing the discharge rate for all industries with that for the industries for which separate indexes are presented it is found that boots and shoes, furniture, sawmills, and slaughtering and meat packing discharged employees at a higher rate than that shown by industry as a whole. Automobiles, cotton manufacturing, foundries and machine shops, and iron and steel had a lower discharge rate than industry as a whole.

The lay-off rate for all manufacturing industries was 1.31. This was exceeded by the lay-off rate for automobiles, foundries and machine shops, furniture, sawmills, and slaughtering and meat pack-

ing. Three industries—boots and shoes, cotton manufacturing, and iron and steel—showed lower than average lay-off rate.

The accession rate for automobiles, cotton manufacturing, foundries and machine shops, and iron and steel was lower than for industry as a whole. The accession rates for furniture, boots and shoes, sawmills, and slaughtering and meat packing were higher than for industry as a whole.

The highest quit rate for any industries for which separate indexes are shown was in the slaughtering and meat-packing industry. The quit rate for this industry was 1.52. The lowest quit rate, 0.42, was shown by the furniture industry. Slaughtering and meat packing also had the highest discharge rate, 0.48. This contrasts with a discharge rate of 0.10 in the automotive industry. Contrasting with its low discharge rate, the automotive industry showed the highest lay-off rate, 4.53. Cotton manufacturing had the lowest lay-off rate, 0.67. The highest accession rate, 4.80, was also shown by slaughtering and meat-packing industry. The lowest accession rate, 1.23, was in the foundries and machine-shop industry.

WAGES AND HOURS OF LABOR

Union Scales of Wages and Hours of Labor, 1913 to 1930: Preliminary Report

THE Bureau of Labor Statistics has collected, as of May 15, 1930, information concerning the union scales of wages and hours of labor in the principal time-work trades in 67 of the leading cities of the United States. A full compilation of the figures is now in progress and will be published as a bulletin of the bureau.

In this article an abridged compilation is made of the 1930 data for 20 important trade groups in 40 localities, with comparative figures for all but five of the preceding years back to 1913, in so far as effective scales were found for the earlier years. Data for 1914, 1915, 1916, 1917, and 1918 are omitted for lack of space, but figures for those years may be obtained by referring to the September, 1925, issue of the Labor Review.

The trades here covered are:

Bricklayers.
Building laborers.
Carpenters.
Cement finishers.
Compositors: Book and job.
Compositors, daywork: Newspaper.
Electrotypers: Finishers.
Electrotypers: Molders.
Granite cutters, inside.
Hod carriers.
Inside wiremen.
Painters.
Plasterers.
Plasterers' laborers.
Plumbers.
Sheet-metal workers.
Stonecutters.
Structural-iron workers.
Typesetting-machine operators: Book and job.
Typesetting-machine operators, daywork: Newspaper.

The union scale represents the minimum rate and the maximum hours agreed upon between the unions and the employers. Quite often, however, a higher rate was paid to some or perhaps all of the members of a union in some particular city.

The union scale generally represents the prevailing rate for the trade in the locality, even though all persons in the trade may not be members of the union.

Two or more quotations of rates and hours are shown for some occupations in some cities. Such quotations indicate that there were two or more agreements with different employers and possibly made also by different unions, or for subclassifications of a specific occupation, such as building laborers.

Bricklayers

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Atlanta	45.0	70.0	112.5	100.0	100.0	112.5	112.5 125.0	112.5 125.0	140.0	140.0	140.0	125.0	125.0	53	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	62.5	100.0	125.0	125.0	125.0	150.0	150.0	150.0	162.5	162.5	162.5	162.5	175.0	[1] 45	[1] 45	[1] 45	[1] 45	[1] 45	44	44	44	44	44	[2] 44	40	40
Birmingham	70.0	87.5	100.0	100.0	100.0	112.5	125.0	137.5	150.0	150.0	150.0	150.0	150.0	[3] 44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	65.0	80.0	100.0	100.0	100.0	125.0	125.0	125.0	140.0	140.0	140.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	65.0	85.0	100.0	100.0	100.0	125.0	125.0	137.5	137.5	150.0	150.0	150.0	150.0	48	[4] 44	[4] 44	44	44	44	44	44	44	44	44	44	44
Charleston, S. C	40.0	75.0	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	53	[4] 48	48	48	48	48	48	44	48	44	44	44	44
Chicago	75.0	87.5	125.0	125.0	110.0	110.0	125.0	150.0	150.0	162.5	162.5	162.5	170.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	65.0	90.0	125.0	125.0	125.0	125.0	150.0	150.0	162.5	162.5	162.5	162.5	162.5	45	45	45	45	45	45	45	44	44	44	44	44	40
Cleveland	65.0	90.0	125.0	125.0	125.0	140.0	150.0	150.0	150.0	150.0	162.5	162.5	162.5	48	44	44	44	44	44	44	44	44	44	44	44	40
Dallas	87.5	100.0	112.5	150.0	137.5	150.5	150.0	150.0	162.5	162.5	162.5	162.5	175.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Denver	75.0	100.0	125.0	125.0	125.0	137.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	40	44	44
Detroit	65.0	90.0	125.0	100.0	100.0	135.0	150.0	150.0	150.0	157.5	157.5	157.5	157.5	[5] 48	[6] 44	44	44	44	44	44	44	44	44	44	44	40
Fall River	55.0	85.0	115.0	115.0	95.0	110.0	110.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	75.0	85.0	125.0	115.0	115.0	135.0	150.0	150.0	150.0	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Jacksonville	62.5	75.0	87.5	100.0	87.5	87.5	100.0	125.0	150.0	150.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	75.0	100.0	112.5	112.5	112.5	137.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	75.0	100.0	125.0	125.0	125.0	125.0	137.5	150.0	150.0	150.0	150.0	150.0	150.0	[7] 44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	75.0	87.5	125.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Louisville	65.0	85.0	115.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	40	40
Manchester	55.0	90.0	112.5	112.5	112.5	112.5	150.0	137.5	137.5	137.5	137.5	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	40	40
Memphis	75.0	87.5	125.0	112.5	112.5	125.0	150.0	150.0	162.5	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Milwaukee	67.5	90.0	125.0	100.0	100.0	125.0	125.0	125.0	125.0	140.0	140.0	140.0	140.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	65.0	87.5	125.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	65.0	87.5	125.0	125.0	125.0	125.0	150.0	150.0	162.5	175.0	175.0	175.0	193.8	44	44	44	44	44	44	44	44	44	44	44	44	40
New Haven	60.0	82.5	100.0	100.0	100.0	112.5	125.0	125.0	137.5	137.5	143.8	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	62.5	75.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	70.0	87.5	125.0	125.0	125.0	150.0	150.0	150.0	175.0	175.0	175.0	187.5	192.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Omaha	70.0	87.5	125.0	112.5	100.0	125.0	125.0	125.0	125.0	137.5	137.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	62.5	80.0	130.0	130.0	125.0	137.5	150.0	150.0	162.5	162.5	162.5	162.5	175.0	44	44	44	[8] 44	44	44	44	44	44	40	40	40	40
Pittsburgh	70.0	90.0	112.5	150.0	130.0	130.0	140.0	155.0	162.5	162.5	170.0	170.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	40

[1] 44½ hours per week, November to March, inclusive.
[2] 40 hours per week, June to August, inclusive.
[3] 48 hours per week, October to December, inclusive.
[4] 48 hours per week, Nov. 16 to Mar. 15.
[5] 44 hours per week, October to April, inclusive.
[6] 48 hours per week, December to February, inclusive.
[7] 48 hours per week, October to April, inclusive.
[8] 40 hours per week, July 1 to Sept. 7.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Bricklayers—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Portland, Oreg.	75.0	100.0	125.0	125.0	112.5	125.0	125.0	137.5	137.5	137.5	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	40	40	40	40
Providence	65.0	80.0	115.0	115.0	115.0	115.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	65.0	87.5	100.0	100.0	100.0	150.0	125.0	150.0	150.0	125.0	150.0	150.0	150.0	45	[9] 45	[9] 45	[9] 45	[9] 45	[9] 45	[9] 45	45	45	44	44	44	[2] 44
St. Louis	70.0	100.0	125.0	125.0	125.0	150.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	65.0	87.5	125.0	112.5	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	75.0	100.0	125.0	112.5	112.5	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	87.5	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Scranton	60.0	75.0	112.5	125.0	125.0	137.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	[10] 44	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	75.0	112.5	125.0	112.5	112.5	125.0	137.5	137.5	137.5	145.0	150.0	150.0	150.0	44	40	40	44	44	44	44	44	44	44	[11] 40	[11] 40	[11] 40	[11] 40
Washington	62.5	87.5	100.0	125.0	137.5	137.5	150.0	162.5	162.5	162.5	162.5	162.5	175.0	[12] 45	44	44	44	44	44	44	44	44	44	44	44	40

Building laborers

Boston	35.0	40.0	{67.5 / 70.0	67.5 / 70.0	[13] 67.5 / 70.0	[13] 67.5 / 70.0	65.0	65.0	74.0	74.0	74.0	80.0	80.0	48	44	44	44	44	48	48	48	48	48	48	48	48
Buffalo													55.0													44
Chicago	40.0	57.5	100.0	100.0	72.5	72.5	72.5	82.5	87.5	{90.0 / 105.0 / 120.0	90.0 / 105.0 / 120.0	90.0 / 105.0 / 120.0	97.5 / 112.5 / 127.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	20.0	40.0	45.0	50.0	40.0	45.0	52.5	55.0	58.0	60.0	60.0	60.0	60.0	60	50	50	50	50	50	50	50	50	50	50	50	50
Cleveland		57.5	87.5	87.5	57.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5		44	44	44	44	44	44	44	44	44	44	44	40
Detroit		65.0	75.0	60.0	50.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		44	44	44	44	49½	49½	44	44	44	44	44	44
Kansas City, Mo.	27.5	57.5	75.0	75.0	70.0	70.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	34.4	50.0	62.5	62.5	62.5	62.5	62.5	62.5	75.0	75.0	{62.5 / 75.0}	62.5	62.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Louisville	27.9	35.0	50.0	40.0	40.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	48	50	44	44	44	44	44	44	44	44	44	44	44
Milwaukee			65.0	65.0	55.0	60.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0			44	44	44	44	44	44	44	44	44	44	44
Minneapolis				55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	{55.0 / 65.0}	65.0				44	44	44	44	44	44	44	44	44	44
Newark, N.J.								100.0	112.5	112.5	112.5	112.5	125.0										44	44	44	44
New Haven				{60.0 / 81.3	60.0 / 81.3	75.0 / 81.3	81.3	81.3	105.0	75.0 / {90.6 / 115.0	75.0 / 93.8 / 115.0	75.0 / 93.8 / 120.0	75.0 / 93.8 / 103.1	48	48	48	{44 / 48	44 / 48	44	44	44	44	44	44	44	40
New York	22.5	40.5	75.0				{100.0	100.0	117.5																	

Newark, N. J.	------	------	------	------	------	------	------	100.0	112.5	112.5	112.5	112.5	125.0	------	------	------	------	------	------	------	44	44	44	44	44	44
New Haven	------	------	------	------	------	------	------	------	------	75.0	75.0	75.0	75.0	------	------	------	------	------	------	------	------	------	44	44	44	44
New York	22.5	40.5	75.0	60.0 81.3 87.5	60.0 81.3 87.5	75.0 81.3 87.5	81.3 100.0	81.3 100.0	105.0 117.5	90.6 115.0 125.0	93.8 115.0 125.0	93.8 120.0 130.0	103.1	48	48	48	44 48	44 48	44	44	44	44	44	44	44	44	40
Philadelphia	------	------	------	------	------	------	------	------	------	------	60.0	60.0	50.0	------	------	------	------	------	------	------	------	------	------	44	44	44	44
Pittsburgh	25.0	45.0	70.0	100.0 80.0	80.0 50.0	100.0 60.0	70.0	70.0	80.0	112.5 80.0	112.5 80.0	112.5 80.0	112.5 80.0	54	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg	37.5	62.5	75.0	67.5	67.5	67.5	67.5	67.5	67.5	67.5	68.8	68.8	75.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	40
St. Louis	25.0	40.3 45.0	54.0 67.5	54.0 67.5	54.0 57.5	54.0 67.5	75.0	75.0	75.0	75.0 87.5	61.5 75.0 87.5 92.5	[12] 61.5 [12] 75.0 [12] 87.5 [12] 92.5	87.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	------	------	61.3	61.3	55.0	50.0	55.0	55.0	55.0	55.0	55.0	55.0 65.0	55.0	------	------	49½	49½	49½	49½	49½	44	44	44	44	44	44	44	44
San Francisco	27.8	62.5	75.0	81.3	62.5	62.5	62.5	62.5	62.5	68.8	68.8 75.0	68.8 75.0	68.8 75.0	54	48	48	48	44	44	44	48	48	48	44	44	44	44	44
Scranton	25.0	50.0	58.5	70.0	60.0	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	54	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Seattle	37.5	68.8	75.0	75.0	62.5	62.5	62.5	62.5	62.5	62.5 75.0	70.0 82.5	70.0 82.5	70.0 82.5	44	40	44	44	44	44	44	44	44	44	44 [11] 40	44 [11] 40	44 [11] 40	44 [11] 40	44 [11] 40

Carpenters

Atlanta	40.0	60.0	80.0	70.0	70.0	70.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	50	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	43.8	80.0	90.0	90.0	80.0	90.0	90.0	100.0	110.0	110.0	110.0	110.0	110.0	48	44	44	44	44	44	44	44	44	44	44	40	40	40	40
Birmingham	52.5	65.0	75.0	75.0	75.0	75.0	87.5	87.5	95.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	40
Boston	50.0	75.0	100.0	100.0	100.0	105.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	44	40	40	40	40	44	44	44	44	44	44	44	44	44	44
Buffalo	50.0	70.0	100.0	87.5	87.5	100.0	112.5	112.5	112.5	112.5	112.5	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Charleston, S. C	33.3	70.0	80.0	80.0	70.0	70.0	80.0	70.0	70.0 75.0	70.0 75.0	70.0 75.0	60.0 75.0	60.0 75.0	53	48	48	48	48	48	44 48	44	48	48 44	44	44	44	44	44
Chicago	65.0	80.0	125.0	125.0	110.0	125.0	125.0	125.0	137.5	150.0	150.0	150.0	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	50.0	70.0	100.0	100.0	95.0	105.0	115.0	125.0	131.3	135.0	137.5	137.5	140.0	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½
Cleveland	50.0	85.0	125.0	125.0	104.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44	40
Dallas	55.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	60.0	87.5	112.5	112.5	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40	40	40
Detroit	50.0	80.0	100.0	85.0	85.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	42.0	75.0	100.0	100.0	85.0	95.0	95.0	95.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	50.0	75.0	100.0	92.5	92.5	92.5	97.5	110.0	110.0	110.0	122.5	122.5	122.5	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½
Jacksonville	31.3	65.0	80.0	80.0	80.0	80.0	90.0	90.0	100.0	100.0	80.0	80.0 70.0	80.0 70.0	48	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	55.0	85.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	50.0	80.0	92.5	80.0	80.0	80.0	90.0	90.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	50.0	75.0	87.5	100.0	100.0	112.5	112.5	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	45.0	60.0	80.0	80.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	40.0	60.0	100.0	90.0	90.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44

[8] 40 hours per week, June to August, inclusive.
[9] 44½ hours per week, December to February, inclusive.
[10] 48 hours per week, September to April, inclusive.
[11] 44 hours per week, September to April, inclusive.
[12] 44½ hours per week, October to April, inclusive.
[13] Old scale; strike pending.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Carpenters—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Memphis	50.0	75.0	100.0	75.0	75.0	75.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Milwaukee	50.0	70.0	100.0	85.0	85.0	95.0	100.0	100.0	100.0	100.0	100.0	110.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	75.0	100.0	100.0	80.0	80.0	90.0	-------	-------	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	-----	-----	44	44	44
Newark, N.J.	50.0	80.0	100.0	100.0	112.5	112.5	131.3	137.5	140.0	140.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	47.5	65.0	100.0	100.0	90.0	90.0	100.0	100.0	100.0	112.5	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	40.0	60.0	75.0	100.0	100.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	48	48	48	44	44	44	44	44	44	44	44	44	44
New York	62.5	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	150.0	150.0	165.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Omaha	50.0	75.0	112.5	101.3	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	80.0	112.5	112.5	90.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	[2] 44
Pittsburgh	55.0	80.0	90.0	125.0	100.0	120.0	137.5	137.5	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Portland, Oreg	50.0	86.0	100.0	90.0	90.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	[14]44	40
Providence	50.0	70.0	100.0	100.0	85.0	90.0	100.0	110.0	110.0	110.0	117.5	117.5	117.5	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	62.5	82.5	100.0	125.0	110.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	40	40	40
St. Paul	50.0	75.0	100.0	100.0	80.0	80.0	90.0	-------	-------	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	-----	-----	44	44	44
Salt Lake City	62.5	100.0	112.5	100.0	90.0	100.0	106.3	106.3	106.3	106.3	106.3	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	87.5	106.3	112.5	104.4	104.4	104.4	104.4	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Scranton	42.5	70.0	87.5	87.5	87.5	93.8	112.5	112.5	112.5	125.0	125.0	125.0	118.8	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	56.3	93.8	100.0	87.5	87.5	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	[11] 40	[11] 40	[11] 40
Washington	50.0	87.5	95.0	105.0	105.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	137.5	44½	44	44	44	44	44	44	44	44	44	44	44	40

Cement finishers

Atlanta	-----	-----	-----	-----	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	-----	-----	44	44	44	44	44	44	44	44	44
Baltimore	-----	75.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	137.5	-----	44	44	44	44	44	44	44	44	44	40	40	40	40
Birmingham	50.0	75.0	75.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	48	48	48	48	48	48	44	44	44	44	44	40
Boston	62.5	75.0	100.0	100.0	100.0	105.0	110.0	110.0	137.5	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	50.0	65.0	100.0	100.0	85.0	100 0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	48	44	44	44	44	44	44	44	44	44	44	44
Chicago	65.0	80.0	125.0	125.0	110.0	110.0	125.0	125.0	137.5	150.0	150.0	150.0	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	50.0	60.0	90.0	90.0	87.5	97.5	107.5	117.5	123.8	127.5	130.0	130.0	132.5	50	50	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½
Cleveland	60.0 50.0	80.0	90.0	125.0	104.0	125.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	40
Dallas	50.0	87.5	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	137.5	48	48	48	48	48	48	48	44	48	48	48	48	48
Denver	68.8	87.5	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	50.0	80.0	125.0	100.0	100.0	112.5	150.0	112.5	112.5	137.5	137.5	112.5	112.5	54	44	44	44	44	44	44	44	44	44	44	44	44

Denver	68.8	87.5	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	50.0	80.0	125.0	100.0	100.0	112.5	150.0	112.5	112.5	137.5	137.5	112.5	112.5	125.0	54	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	.....	85.0	115.0	115.0	95.0	110.0	110.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	.....	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	50.0	70.0	90.0	100.0	90.0	95.0	105.0	105.0	105.0	110.0	112.5	117.5	117.5	50	50	50	50	50	50	50	50	50	50	44	44	44	
Kansas City, Mo	62.5	87.5	107.5	107.5	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	55.6	87.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	54	[15] 44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	62.5	.....	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	{125.0 / 137.5}	125.0	125.0	48	.....	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	45.0	70.0	80.0	90.0	90.0	110.0	110.0	110.0	125.0	125.0	125.0	125.0	125.0	60	44	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	.....	90.0	112.5	112.5	112.5	112.5	150.0	137.5	137.5	137.5	137.5	150.0	150.0	.....	44	44	44	44	44	44	44	44	44	44	44	40	40
Memphis	50.0	.....	87.5	.....	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	54	.....	44	.....	44	44	44	44	44	44	44	44	44	40
Milwaukee	45.0	70.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	.....	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	.....	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	62.5	87.5	125.0	125.0	125.0	125.0	150.0	150.0	162.5	175.0	175.0	175.0	193.8	44	44	44	44	44	44	44	44	44	44	44	44	44	40
New Haven	.....	82.5	100.0	100.0	100.0	112.5	125.0	125.0	137.5	137.5	143.8	150.0	150.0	.....	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	.....	.....	.....	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	100.0	.....	.....	.....	45	45	45	45	44	44	44	44	44	44	44
New York	62.5	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	150.0	150.0	165.0	44	44	44	44	44	44	44	44	44	44	44	44	44	40
Omaha	.....	75.0	112.5	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	.....	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	45.0	72.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	49½	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	.....	75.0	82.5	112.5	87.5	112.5	125.0	125.0	135.0	135.0	135.0	135.0	135.0	.....	44	44	44	44	44	44	44	44	44	44	44	44	40
Portland, Oreg.	62.5	87.5	100.0	90.0	90.0	100.0	102.5	112.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	40	40	40	40	40
Providence	.....	80.0	100.0	100.0	87.5	100.0	115.0	125.0	115.0	115.0	115.0	115.0	115.0	.....	44	44	44	44	44	44	44	44	44	44	44	44	40
Richmond, Va	.....	.....	.....	87.5	87.5	125.0	125.0	.....	.....	100.0	125.0	125.0	125.0	.....	.....	.....	44	44	44	44	.....	.....	44	44	44	44	44
St. Louis	60.0	82.5	125.0	125.0	100.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	157.5	44	44	44	44	44	44	44	44	44	44	44	40	40	40
St. Paul	50.0	75.0	100.0	100.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	62.5	87.5	112.5	100.0	.....	100.0	100.0	106.3	.....	.....	150.0	112.5	112.5	48	48	48	44	.....	44	44	44	.....	.....	44	44	44	
San Francisco	75.0	100.0	112.5	112.5	104.4	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	40
Scranton	.....	.....	.....	.....	.....	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	.....	.....	.....	.....	.....	44	44	44	44	44	40	40	40	
Seattle	62.5	100.0	112.5	112.5	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	40	40	40	44	44	44	44	44	44	44	44	44	44
Washington	.....	87.5	90.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	125.0	.....	44	44	44	44	44	44	44	44	44	44	44	44	44

Compositors: Book and job

Atlanta	34.4	43.8	57.5	75.0	80.0	80.0	80.0	80.0	80.0	100.0	100.0	100.0	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44	44
Baltimore	37.5	54.2	81.3	83.3	83.3	90.9	90.9	90.9	90.9	90.9	90.9	90.9	100.0	48	48	48	48	48	44	44	44	44	44	44	44	44	44
Birmingham	40.6	44.8	76.0	80.0	80.0	80.0	80.0	80.0	92.5	92.5	92.5	92.5	92.5	48	48	48	48	44	44	44	44	44	44	44	44	44	44
Boston	41.7	55.2	72.9	87.0	87.0	87.0	92.0	92.0	92.0	96.0	96.0	96.0	96.0	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Buffalo	39.6	59.4	71.9	83.3	90.9	90.9	90.9	90.9	100.0	100.0	100.0	100.0	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44	44

[2] 40 hours per week, June to August, inclusive.
[11] 44 hours per week, September to April, inclusive.
[14] 40 hours per week, October to April, inclusive.
[16] 48 hours per week, October to March, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES— Continued

Compositors: Book and job—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Charleston, S. C.	33.3	37.5	37.5	98.9	98.9	90.9	84.1	90.9	84.1	84.1	84.1	84.1	84.1	48	48	48	44	44	44	44	44	44	44	44	44	44
Chicago	46.9	75.0	95.8	106.0	106.0	110.0	115.9	115.9	115.9	122.7	122.7	122.7	129.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Cincinnati	40.6	51.0	75.0	104.5	104.5	104.5	109.1	109.1	109.1	113.6	113.6	115.9	118.1	48	48	48	44	44	44	44	44	44	44	44	44	44
Cleveland	39.6	62.5	87.5	93.8	93.8	93.8	100.0	104.5	106.8	109.1	109.1	111.4	111.4	48	48	48	48	44	44	44	44	44	44	44	44	44
Dallas	52.1	70.8	88.5	100.0	93.2	93.2	93.2	93.2	93.2	93.2	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Denver	54.2	66.6	81.3	81.3	95.5	95.5	95.5	102.3	102.3	102.3	102.3	102.3	102.3	48	48	48	48	44	44	44	44	44	44	44	44	44
Detroit	38.5	72.9	92.7	96.9	105.0	105.0	105.0	105.0	110.0	115.0	120.0	122.0	125.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Fall River	33.3	41.7	62.5	72.7	72.7	72.7	81.8	81.8	81.8	81.8	81.8	81.8	81.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Indianapolis	43.8	54.2	75.0	100.0	92.7	95.5	95.5	98.0	100.0	102.3	104.5	106.8	111.4	48	48	48	44	44	44	44	44	44	44	44	44	44
Jacksonville	37.5	52.1	75.0	81.8	81.8	81.8	81.8	81.8	98.9	98.9	98.9	98.9	98.9	48	48	48	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	41.7	54.2	72.9	84.4	84.4	88.6	92.0	94.3	96.6	98.9	100.0	102.3	102.3	48	48	48	48	48	44	44	44	44	44	44	44	44
Little Rock	37.5	43.8	72.9	72.9	70.0	70.0	70.0	85.2	96.6	96.6	92.2	92.0	94.3	48	48	48	48	44	44	44	44	44	44	44	44	44
Los Angeles	46.9	58.3	75.0	95.5	95.5	95.5	102.3	102.3	102.3	106.8	106.8	106.8	106.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Louisville	37.5	45.8	45.8	79.2	79.0	79.0	79.0	------	------	79.0	79.0	86.4	86.4	48	48	48	48	44	44	44	------	------	44	44	44	44
Manchester	35.4	41.7	66.7	77.3	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Memphis	40.0	55.4	93.8	93.8	82.3	82.3	82.3	80.0	80.0	81.8	81.8	81.8	81.8	48	48	48	48	44	44	44	44	44	44	44	44	44
Milwaukee	41.7	54.2	72.9	85.4	93.2	93.2	93.2	93.2	95.5	100.0	102.3	102.3	104.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Minneapolis	43.8	54.0	87.5	87.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Newark, N. J.	47.9	72.9	91.7	111.4	102.3	109.1	115.9	115.9	118.2	120.5	122.7	125.0	127.3	48	48	48	44	44	44	44	44	44	44	44	44	44
New Haven	40.6	45.8	58.3	58.3	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	48	48	48	48	44	44	44	44	44	44	44	44	44
New Orleans	43.8	50.0	71.9	71.9	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	48	48	48	48	44	44	44	44	44	44	44	44	44
New York	50.0	75.0	93.8	113.6	113.6	113.6	120.5	120.5	122.7	125.0	127.3	129.5	131.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Omaha	37.5	68.8	87.5	93.2	93.2	93.2	93.2	93.2	93.2	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Philadelphia	39.6	60.4	89.6	89.6	89.6	89.6	89.6	90.0	90.0	90.0	90.0	90.0	95.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Pittsburgh	39.6	60.4	81.3	100.0	100.0	100.0	100.0	100.0	100.0	104.5	104.5	104.5	106.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	53.1	75.0	85.4	95.8	95.8	90.9	90.9	102.3	102.3	105.7	105.7	105.7	105.7	48	48	48	44	44	44	44	44	44	44	44	44	44
Providence	37.5	50.0	72.9	72.9	79.5	79.5	90.9	90.9	90.9	90.9	90.9	90.9	90.9	48	48	48	48	44	44	44	44	44	44	44	44	44
St. Louis	43.8	52.7	79.2	92.8	92.8	92.8	98.0	98.0	98.0	103.0	103.0	103.0	103.0	48	48	48	44	44	44	44	44	44	44	44	44	44
St. Paul	43.8	54.0	83.3	87.5	95.5	90.9	95.5	95.5	95.5	------	95.5	95.5	95.5	48	48	48	48	44	44	44	44	44	------	44	44	44
San Francisco	50.0	62.5	81.3	104.5	104.5	104.5	104.5	115.9	115.9	115.9	115.9	115.9	118.2	48	48	48	44	44	44	44	44	44	44	44	44	44
Scranton	43.8	52.1	71.9	77.1	85.2	90.9	90.9	100.0	100.0	102.3	104.5	104.5	104.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Seattle	53.1	75.0	87.5	93.8	93.8	93.8	93.8	93.8	93.8	100.0	100.0	100.0	100.0	48	[16] 48	[16] 48	44	44	44	44	44	44	44	44	44	44
Seattle	53.1	75.0	87.5	93.8	93.8	93.8	93.8	93.8	93.8	100.0	100.0	102.3	104.5	48	[16] 48	[16] 48	44	44	44	44	44	44	44	44	44	44

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Scranton	43.8	52.1	71.9	77.1	85.2	90.9	90.9	100.0	100.0	102.3	104.5	104.5	104.5	48	48	48	48	44	44	44	44	44	44	44	44
Seattle	53.1	75.0	87.5	93.8	93.8	93.8	93.8	93.8	93.8	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44
Washington	40.0	62.5	83.3	90.9	90.9	90.9	90.9	90.9	90.9	100.0	100.0	102.3	104.5	48	[16] 48	[16] 48	44	44	44	44	44	44	44	44	44

Compositors, daywork: Newspaper

Atlanta	43.8	60.6	63.8	91.0	86.5	86.5	93.8	93.8	100.0	100.0	100.0	103.1	103.1	48	48	48	48	48	48	48	48	48	48	48	48
Baltimore	50.0	65.5	93.3	93.3	95.5	95.5	106.8	106.8	110.2	110.2	110.2	114.8	114.8	42	42	45	45	44	44	44	44	44	44	44	44
Birmingham	52.5	67.5	67.5	67.5	82.5	82.5	82.5	82.5	92.5	95.0	97.5	100.0	102.5	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42
Boston	63.0	83.0	95.0	95.0	107.0	107.0	112.0	117.0	117.0	125.0	125.0	125.0	125.0	[18] 42	[18] 42	[18] 42	[18] 42	[17] 44	[17] 44	[17] 44	[17] 44	[17] 44	[17] 44	[17] 44	[17] 44
Buffalo	50.0	65.6	71.9	87.5	87.5	87.5	95.8	95.8	102.1	102.1	102.1	106.3	108.3	48	48	48	48	48	48	48	48	48	48	48	48
Charleston, S. C	33.3	42.9	42.9	90.6	90.6	83.3	83.3	83.3	83.3	83.3	92.7	92.7	92.7	48	[17] 42	[17] 42	48	48	48	48	48	48	48	48	48
Chicago	62.0	79.0	89.0	115.0	115.0	115.0	129.0	129.0	129.0	135.6	138.0	140.0	140.0	[19] 45	[17] 45	[17] 45	48	48	48	45	45	45	45	45	45
Cincinnati	52.1	87.5	107.3	107.3	107.3	113.3	113.3	113.8	113.8	113.8	118.3	118.3	122.8	[20] 47½	48	45	45	45	45	45	45	45	45	45	45
Cleveland	53.8	68.8	87.5	93.8	96.9	103.1	107.3	107.3	116.7	116.7	119.0	119.0	119.0	48	48	48	48	48	48	48	48	45	45	45	45
Dallas	55.0	76.0	88.5	88.5	90.6	90.6	100.0	100.0	106.3	106.3	106.3	106.3	106.3	48	48	48	48	48	48	48	48	48	48	48	48
Denver	63.3	72.7	97.8	97.8	93.3	93.3	103.3	103.3	103.3	103.3	110.6	114.8	119.9	45	45	45	45	45	45	45	45	45	45	44	44
Detroit	55.0	74.5	87.0	97.0	97.0	97.0	113.0	113.0	120.0	125.0	125.0	130.0	131.0	[21] 48	[21] 48	[21] 48	[21] 48	48	48	48	48	[22] 48	45	45	45
Fall River	37.5	49.0	75.0	79.2	79.2	79.2	87.5	87.5	87.5	87.5	87.5	87.5	95.8	48	48	48	48	48	48	48	48	48	48	48	48
Indianapolis	50.0	60.4	81.3	93.8	89.6	100.0	100.0	100.0	104.2	106.3	106.3	110.9	110.9	48	48	48	48	48	48	48	48	48	48	46	46
Jacksonville	37.5	65.6	83.3	83.3	83.3	83.3	83.3	89.6	100.0	100.0	100.0	100.0	100.0	48	48	48	48	48	48	48	48	48	48	48	48
Kansas City, Mo	59.4	68.8	90.6	90.6	90.6	90.6	90.6	95.8	102.1	104.1	104.2	108.3	108.3	48	48	48	48	48	48	48	48	48	48	48	48
Little Rock	47.9	62.5	72.9	83.3	83.3	83.3	83.3	84.4	84.4	84.4	87.5	91.3	95.5	48	48	48	48	48	48	48	48	48	48	46	44
Los Angeles	62.5	75.6	86.7	86.7	101.1	101.1	107.8	------	------	114.0	117.8	117.8	117.8	45	45	45	45	45	45	45	-----	-----	45	45	45
Louisville	49.0	62.5	87.5	82.9	87.5	87.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48
Manchester	35.4	41.7	66.7	70.8	72.9	72.9	80.2	82.3	83.3	83.3	83.3	83.3	88.9	48	48	48	48	48	48	48	48	48	48	48	45
Memphis	57.8	66.7	86.7	92.8	88.9	93.3	93.3	83.3	93.3	100.0	100.0	100.0	100.0	45	[17] 45	[17] 45	[17] 45	[17] 45	[17] 45	[17] 45	48	45	45	45	45
Milwaukee	45.8	56.3	77.1	93.8	93.8	93.8	97.9	102.5	102.5	106.3	106.3	110.4	117.8	48	48	48	48	48	48	48	48	48	48	48	45
Minneapolis	54.0	62.5	87.5	93.8	88.5	88.5	97.9	98.0	98.0	97.9	121.4	121.4	121.4	48	48	48	48	48	48	48	48	48	48	42	42
Newark, N. J	60.9	76.1	89.1	110.9	110.9	110.9	110.9	119.6	121.7	130.4	132.6	134.8	134.8	46	46	46	46	46	46	46	46	46	46	46	46
New Haven	46.9	50.0	72.9	79.2	79.2	79.2	85.4	85.4	87.5	89.6	89.6	91.7	93.8	48	48	48	48	48	48	48	48	48	48	48	48
New York	66.7	96.7	122.2	122.2	122.2	122.2	128.9	133.3	133.3	140.0	142.2	144.4	144.4	45	45	45	45	45	45	45	45	45	45	45	45
Omaha	50.0	68.8	87.5	87.5	87.5	87.5	90.6	90.6	90.6	96.9	97.9	99.0	100.0	48	48	48	48	48	48	48	48	48	48	48	48
Philadelphia	41.7	66.7	81.3	79.2	79.2	79.2	87.5	87.5	87.5	91.3	91.3	91.3	91.3	48	48	48	48	48	48	48	48	48	46	46	46
Pittsburgh	55.0	77.0	87.5	111.8	111.8	118.9	121.1	121.1	125.6	126.7	126.7	126.7	128.9	48	[17] 45	48	46½	46½	45	45	45	45	45	45	45
Portland, Oreg	68.3	100.0	106.7	106.7	106.7	106.7	106.7	106.7	106.7	106.7	106.7	113.3	113.3	45	45	45	45	45	45	45	45	45	45	45	45

[16] 44 hours per week for 3 months, between June 1 and Sept. 30.
[17] Minimum; maximum, 8 hours per day.
[18] Actual hours worked; minimum, 6; maximum, 8 hours per day.
[19] Actual hours worked; minimum, 7; maximum, 8 hours per day.
[20] Work 47⅔ hours, paid for 48.
[21] Maximum; minimum, 7 hours per day.
[22] Maximum; minimum, 45 hours, per week.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Compositors, daywork; Newspaper—Continued

City	Rates per hour (cents)													Hours per week												
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Providence	47.9	66.7	87.5	100.0	95.8	95.8	104.2	104.2	104.2	108.3	108.3	108.3	112.5	48	48	48	48	43	48	48	48	48	48	48	48	48
Richmond, Va.	33.3	45.8	58.3	87.5	87.5	87.5	87.5	87.5	94.8	94.8	94.8	94.8	94.8	48	48	48	48	48	48	48	48	48	48	48	48	48
St. Louis	58.7	63.4	91.3	91.3	91.3	91.3	102.2	106.5	110.9	110.9	114.1	114.1	120.7	46	46	46	46	46	46	46	46	46	46	46	46	46
St. Paul	54.5	63.0	87.5	88.8	88.8	88.8	93.8	101.3	101.3	101.3	101.3	101.3	101.3	48	[22] 48	[22] 48	[22] 48	[22] 48	[22] 48	[22] 48	[22] 48	[22] 48	48	48	48	48
Salt Lake City	62.5	71.9	87.5	87.5	96.9	96.9	96.9	104.3	104.3	104.3	104.3	104.3	106.7	48	48	48	48	48	48	48	46	46	46	46	46	46
San Francisco	64.4	75.6	93.3	107.8	107.8	107.8	107.8	115.6	115.6	115.6	120.0	120.0	120.0	45	45	45	45	45	45	45	45	45	45	45	45	45
Scranton	47.9	60.4	81.3	87.5	87.5	95.8	95.8	104.2	110.4	112.5	114.9	114.9	114.9	48	48	48	48	48	48	48	48	48	48	47	47	47
Seattle	75.0	100.0	114.3	114.3	114.3	114.3	121.4	121.4	121.4	123.2	123.2	123.2	123.2	42	42	42	42	42	42	42	42	42	42	42	42	42
Washington	60.7	92.9	104.0	104.0	104.0	104.0	110.0	110.0	128.6	128.6	128.6	128.6	128.6	42	42	42	42	42	42	42	42	42	42	42	42	42

Electrotypers: Finishers

City	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Atlanta	45.8	57.3	88.5	96.6	93.2	93.2	96.6	102.3	102.3	102.3	96.6	96.6	96.6	48	48	48	44	44	44	44	44	44	44	44	44	44
Birmingham	50.0	50.0	72.9	89.8	89.8	96.6	96.6	96.6	102.3	102.3	102.3	105.7	105.7	48	48	48	44	44	44	44	44	44	44	44	44	44
Boston	50.0	52.5	78.1	90.6	90.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0	104.1 104.7	48	48	48	48	48	48	48	48	48	48	48	48	48 44
Buffalo	43.8	56.3	72.9	77.1	77.1	81.3	81.3	87.5	87.5	91.7	93.8	93.8	97.9	48	48	48	48	48	48	48	48	48	48	48	48	[21] 48
Chicago	49.0	77.1	104.2	113.7	108.0	129.5	134.1	138.6	140.9	140.9	140.9	145.5	150.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Cincinnati	43.8	52.1	66.7	87.5	95.5	85.4	89.6	91.7	91.7	95.8	97.9	97.9	100.0	48	48	48	48	44	48	48	48	48	48	48	48	48
Cleveland	41.7	58.3	83.3	83.3	75.0	83.3	93.8	93.8	93.8	97.9	100.0	104.3	111.4	48	48	48	48	48	48	48	48	48	48	48	46	44
Dallas	37.5	65.6	72.9	72.9	----	----	----	113.6	113.6	113.6	113.6	113.6	113.6	48	48	48	48	----	----	----	44	44	44	44	44	44
Denver	43.8	54.2	62.5	75.0	75.0	75.0	90.9	90.9	90.9	90.9	90.9	90.9	90.9	48	48	48	44	44	44	44	44	44	44	44	44	44
Detroit	37.5	56.3	93.8	102.3	102.3	107.5	113.6	113.6	113.6	125.0	125.0	125.0	127.3	48	48	48	44	44	46½	44	44	44	44	44	44	44
Indianapolis	43.8	63.6	63.6	63.6	85.2	100.0	95.5	95.5	95.5	95.5	100.0	100.0	104.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	43.8	62.5	90.6	89.6	89.6	89.6	100.0	104.5	104.5	104.5	104.5	104.5	109.1	48	48	48	48	48	48	46	44	44	44	44	44	44
Los Angeles	50.0	70.8	86.4	86.4	86.4	102.3	102.3	102.3	102.3	113.6	113.6	113.6	104.2	48	48	44	44	44	44	44	44	44	44	48	44	48
Louisville	----	----	----	----	----	----	----	73.9	102.3	102.3	102.3	96.6	102.3	----	----	----	----	----	----	----	44	44	44	44	44	44
Memphis	45.8	62.5	62.5	68.2	----	----	----	100.0	102.3	113.6	113.6	113.6	113.6	48	48	48	44	----	----	----	44	44	44	44	44	44
Milwaukee	43.8	56.3	75.0	81.3	81.3	81.3	93.8	93.8	93.8	93.8	93.8	93.8	102.3	48	48	48	48	48	48	48	48	48	48	48	48	44
Minneapolis	36.1	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	97.9	97.9	100.0	54	48	48	48	48	48	48	48	48	48	48	48	48
Newark, N. J.	----	75.0	109.1	134.1	134.1	134.1	140.9	140.9	140.9	140.9	140.9	145.5	145.5	----	44	44	44	44	44	44	44	44	44	44	44	44
New York	62.5	75.0	109.1	134.1	134.1	134.1	140.9	140.9	140.9	140.9	140.9	145.5	145.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	43.8	66.7	113.6	102.3	102.3	97.7	102.3	102.3	102.3	102.3	102.3	102.3	102.3	48	48	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	41.7	70.0	103.1	113.6	113.6	125.0	125.0	114.6	114.6	118.8	118.8	118.8	131.8	48	48	48	44	44	44	44	48	48	48	48	48	44
Pittsburgh	43.8	45.8	85.4	79.2	79.2	87.5	91.7	91.7	91.7	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48

Portland, Oreg.	50.0	90.9	104.5	104.5	104.5	104.5	111.4	114.8	114.8	119.3	119.3	119.3	119.3	48	44	44	44	44	44	44	44	44	44	44	44
St. Louis	45.8	55.0	85.4	89.6	89.6	93.8	102.2	109.1	111.4	113.6	113.6	115.9	118.2	48	48	48	48	48	48	46½	44	44	44	44	44	44
St. Paul	43.8	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	97.9	97.9	100.0	48	48	48	48	48	48	48	48	48	48	48	48	48
San Francisco	56.3	62.5	79.2	113.6	113.6	113.6	113.6	125.0	125.0	125.0	125.0	125.0	125.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Scranton	41.7	50.0	75.0	90.9	90.9	90.9	97.7	97.7	102.3	102.3	106.8	106.8	106.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Seattle	52.1	77.8	104.5	104.5	104.5	------	113.6	118.2	118.2	119.3	119.3	119.3	119.3	48	45	44	44	44	-----	44	44	44	44	44	44	44
Washington	50.0	58.3	93.8	102.3	90.9	90.9	102.3	102.3	113.6	113.6	113.6	113.6	118.2	44	48	48	44	44	44	44	44	44	44	44	44	44

Electrotypers: Molders

Atlanta	45.8	57.3	88.5	96.6	90.9	94.3	96.6	96.6	102.3	102.3	96.6	96.6	96.6	48	48	48	44	44	44	44	44	44	44	44	44	44
Birmingham	50.0	50.0	72.9	89.8	89.8	96.6	96.6	96.6	102.3	102.3	102.3	105.7	105.7	48	48	48	44	44	44	44	44	44	44	44	44	44
Boston	50.0	52.5	78.1	90.6	90.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0	{104.1 104.7	48	48	48	48	48	48	48	48	48	48	48	48	{48 44
Buffalo	43.8	56.3	72.9	77.1	77.1	81.3	81.5	87.5	87.5	91.7	93.8	93.8	97.9	48	48	48	48	48	48	48	48	48	48	48	48	[31] 48
Chicago	54.2	77.1	104.2	113.7	108.0	129.5	134.1	138.6	140.9	140.9	140.9	145.5	150.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Cincinnati	47.9	52.1	70.8	87.5	95.5	85.4	89.6	91.7	91.7	95.8	97.9	97.9	100.0	48	48	48	48	44	48	48	48	48	48	48	48	48
Cleveland	43.8	60.4	83.3	83.3	75.0	83.3	93.8	93.8	93.8	97.0	100.0	104.3	111.4	48	48	48	48	48	48	48	48	48	48	48	46	44
Dallas	43.8	65.6	72.9	72.9	------	------	------	113.6	113.6	113.6	113.6	113.6	113.6	48	48	48	48	-----	-----	-----	44	44	44	44	44	44
Denver	52.1	60.4	69.8	79.5	79.5	79.5	98.9	90.9	90.9	90.9	90.9	90.9	90.9	48	48	48	44	44	44	44	44	44	44	44	44	44
Detroit	37.5	56.3	93.8	102.3	102.3	107.5	113.6	113.6	113.6	125.0	125.0	125.0	127.3	48	48	48	44	44	46½	44	44	44	44	44	44	44
Indianapolis	45.8	65.9	65.9	65.9	85.2	100.0	95.5	95.5	95.5	95.5	100.0	100.0	104.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	43.8	62.5	90.6	95.8	95.8	95.8	100.0	104.5	104.5	104.5	104.5	104.5	109.1	48	48	48	48	48	48	46	44	44	44	44	44	44
Los Angeles	50.0	70.8	86.4	86.4	86.4	102.3	102.3	102.3	102.3	113.6	125.0	113.6	104.2	48	48	44	44	44	44	44	44	44	44	48	44	48
Louisville	------	------	------	------	------	------	------	73.9	103.3	102.3	102.3	96.6	102.3	-----	-----	-----	-----	-----	-----	-----	44	44	44	44	44	44
Memphis	45.8	62.5	62.5	68.2	------	------	------	100.0	102.3	113.6	113.6	113.6	113.6	48	48	48	44	-----	-----	-----	44	44	44	44	44	44
Milwaukee	43.8	56.3	75.0	81.3	81.3	81.3	93.8	93.8	93.8	93.8	93.8	93.8	102.3	48	48	48	48	48	48	48	48	48	48	48	48	44
Minneapolis	36.1	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	97.9	97.9	100.0	54	48	48	48	48	48	44	48	48	48	48	48	48
Newark, N.J.	------	75.0	109.1	134.1	134.1	134.1	140.9	140.9	140.9	140.9	140.9	145.5	145.5	-----	44	44	44	44	44	44	44	44	44	44	44	44
New York	62.5	75.0	109.0	134.1	134.1	134.1	140.9	140.9	140.9	140.9	140.9	145.5	145.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	43.8	66.7	113.6	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	102.3	48	48	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	45.8	70.0	113.1	113.6	113.6	125.0	125.0	114.6	114.6	118.8	118.8	118.8	131.8	48	48	44	44	44	44	44	48	48	48	48	48	44
Pittsburgh	50.0	53.1	87.5	87.5	79.2	87.5	91.7	91.7	91.7	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Portland, Oreg	50.0	90.9	104.5	104.5	104.5	104.5	111.4	114.8	114.8	119.3	119.3	119.3	119.3	48	48	44	44	44	44	44	44	44	44	44	44	44
St. Louis	47.9	57.3	85.4	89.6	89.6	93.8	102.2	109.1	111.4	113.6	113.6	115.9	118.2	48	48	48	48	48	48	46½	44	44	44	44	44	44
St. Paul	50.0	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	97.9	97.9	100.0	48	48	48	48	48	48	48	48	48	48	48	48	48
San Francisco	56.3	62.5	79.2	113.6	113.6	113.6	113.6	125.0	125.0	125.0	125.0	125.0	125.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Scranton	47.9	56.3	75.0	90.9	90.9	90.9	97.7	97.7	102.3	102.3	106.8	106.8	106.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Seattle	52.1	77.8	104.5	104.5	104.5	------	113.6	118.2	118.2	119.3	119.3	119.3	119.3	48	45	44	44	44	-----	44	44	44	44	44	44	44
Washington	50.0	58.3	93.8	102.3	90.9	90.9	102.3	102.3	113.6	113.6	113.6	113.6	118.2	44	48	48	44	44	44	44	44	44	44	44	44	44

[30] Maximum; minimum, 45 hours per week.

[31] 44 hours per week, June to September, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Granite cutters, inside

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Baltimore	50.0	75.0	100.0	100.0	100.0	100.0	112.5	112.5	118.8	118.8	118.8	118.8	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	45.6	75.0	100.0	100.0	100.0	100.0	100.0	100.0	110.0	112.5	112.5	118.0	124.0	44	44	44	44	44	44	44	44	44	44	44	44	[30] 44
Buffalo	43.8	75.0	100.0	100.0	100.0	100.0	100.0	106.3	106.3	112.5	112.5	118.8	118.8	44	44	44	44	44	44	44	[20] 44	[20] 44	[20] 44	[20] 44	40	40
Charleston, S. C	45.0	69.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	105.0	105.0	105.0	44	44	44	44	40	40	44	44	44	44	40	44	[27] 44
Cincinnati	----	75.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	----	44	44	44	40	44	[20] 44	[20] 44	[20] 44	[20] 44	[20] 44	[20] 44	[20] 44
Cleveland	50.0	81.3	100.0	100.0	100.0	106.3	106.3	115.6	115.6	115.6	115.6	118.8	125.0	44	44	44	44	40	44	[20] 44	[20] 44	[20] 44	[20] 44	[20] 44	[22] 44	[22] 44
Dallas	----	81.3	100.0	100.0	100.0	100.0	100.0	106.3	106.3	106.3	106.3	112.5	125.0	----	44	44	44	44	44	44	44	44	[20] 44	[20] 44	44	44
Denver	57.0	85.0	100.0	106.3	106.3	106.3	106.3	106.3	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	45.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	44½	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	48.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	110.0	110.0	110.0	115.0	45	44	44	44	44	44	44	44	44	[23] 44	[23] 44	[23] 44	[23] 44
Los Angeles	62.5	87.5	100.0	112.5	112.5	112.5	112.5	----	----	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	----	----	44	44	44	44
Louisville	45.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	45	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	40.6	72.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	[33] 44
Newark, N. J	50.0	79.0	100.0	112.5	112.5	112.5	112.5	112.5	137.5	137.5	137.5	137.5	150.0	44	44	44	44	44	44	44	44	40	44	44	44	40
New Haven	41.0	72.5	87.5	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	[24] 44	[24] 44	[24] 44	[24] 44
New Orleans	45.0	75.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	45	44	44	44	44	44	44	44	44	44	44	44	44
New York	50.0	79.0	100.0	112.5	112.5	112.5	112.5	112.5	137.5	137.5	137.5	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Philadelphia	50.0	80.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	[2] 44
Pittsburgh	50.0	81.3	100.0	106.3	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg	----	----	----	----	----	----	----	----	----	112.5	112.5	112.5	112.5	----	----	----	----	----	----	----	----	----	44	44	[25] 44	[25] 44
Providence	40.6	70.0	70.0	100.0	100.0	100.0	100.0	100.0	110.0	110.0	115.0	115.0	115.0	44	44	44	44	44	[5] 40	[26] 44	[27] 44	44	44	44	44	40
Richmond, Va	43.8	70.0	82.5	100.0	100.0	100.0	100.0	100.0	112.5	112.5	100.0	100.0	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	50.0	75.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	[28] 44	44	44	44	44	44	44
Salt Lake City	62.5	81.3	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	87.5	100.0	112.5	112.5	112.5	112.5	112.5	118.8	118.8	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	----	----	----	----	----	----	----	----	----	----	----	125.0	125.0	----	----	----	----	----	----	----	----	----	----	----	44	44
Seattle	62.5	87.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	40	40	40	40	[27] 44	44	[27] 44	44	[27] 44	[27] 44
Washington	45.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	40

Hod carriers

Hod carriers

Boston	35.0	50.0	70.0	70.0	70.0	[18] 70.0	70.0	70.0	79.0	79.0	79.0	85.0	85.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	40.0	57.5	100.0	100.0	72.5	72.5	72.5	82.5	87.5	90.0	90.0	90.0	97.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	42.5	65.0 57.5	85.0	85.0	72.5	82.5	90.0	92.5	95.0	97.5	97.5	97.5	100.0	45	45	45	45	45	45	45	45	45	45	45	45	45
Cleveland	31.3	57.5	87.5	87.5	60.0	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	48	44	44	44	44	44	44	44	44	44	44	44	40
Denver	37.5 40.6	65.6	75.0 78.1	75.0 78.1	75.0 78.1	75.0 78.1	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	40.0 42.5	55.0	72.5 75.0	67.5 70.0	67.5 70.0	72.5 75.0	82.5 87.5	82.5	82.5	87.5 92.5	87.5 100.0	92.5	95.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Kansas City, Mo	37.5	62.5	90.0	90.0	80.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	30.4 40.6	53.1	75.0	75.0	------	------	------	------	------	------	------	------	112.5	44	44	44	44	------	------	------	------	------	------	------	------	40
Louisville	35.0 38.0	50.0	55.0	80.0	80.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	90.0	48	50	44	44	44	44	44	44	44	44	44	44	40
Memphis	30.0	50.0	75.0	62.5	62.5	62.5	75.0	62.5	62.5	62.5	62.5	[9] 62.5	62.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Newark, N. J.	35.0	50.0	87.5	87.5	75.0	87.5	100.0	100.0	112.5	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	40
New Haven	28.0	------	------	------	------	65.0	65.0	65.0	67.5	75.0	75.0	75.0	85.0	44	------	------	------	------	44	44	44	44	44	44	44	44	44
New York	37.5	50.0	87.5	87.5	------	------	70.0	100.0	112.5	112.5	112.5	112.5 118.8	123.8	44	44	44	44	------	------	44	44	44	44	44	40	40
Philadelphia	35.0	70.0	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0 85.0	100.0 85.0	85.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	25.0 40.0	60.0	90.0	100.0	80.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44 49	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg	50.0	75.0	93.8	90.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	40
St. Louis	42.5 45.0	62.5 65.0	70.0	85.0	85.0	100.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	------	60.0	80.0	80.0	75.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	------	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	37.5 50.0	62.5 68.8	87.5 93.8	75.0 81.3	75.0 81.3	87.5 93.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	50.0	75.0	93.8	100.0	71.3	77.2	77.2	87.5	87.5	87.5	87.5	87.5	87.5	44	44	44	44	46½	46½	46½	44	44	44	44	44	40
Scranton	30.0	50.0	58.5	70.0	60.0	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	43.8	75.0	75.0	75.0	------	------	------	------	------	------	87.5	87.5	87.5	44	40	40	44	------	------	------	------	------	------	[11] 40	[11] 40	[11] 40

[2] 40 hours per week, June to August, inclusive.
[5] 44 hours per week, October to April, inclusive.
[11] 44 hours per week, September to April, inclusive.
[18] Old scale; strike pending.
[20] 40 hours per week, November to March, inclusive.
[22] 40 hours per week, June to February, inclusive.
[23] 40 hours per week, Oct. 16 to Mar. 15, inclusive.
[24] 40 hours per week, November to February, inclusive.
[25] 40 hours per week, January, February, June to August, inclusive, and December.
[26] 40 hours per week, November to April, inclusive.
[27] 40 hours per week, October to March, inclusive.
[28] 40 hours per week, Nov. 16 to Apr. 15.
[30] 40 hours per week, July to March, inclusive.
[33] 40 hours per week, Nov. 16 to Mar. 15, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Inside wiremen

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Atlanta	----	75.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	100.0	112.5	112.5	----	44	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	43.8	70.0	92.5	112.5	100.0	100.0	120.0	131.3	131.3	143.8	143.8	150.0	165.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Birmingham	62.5	80.0	100.0	100.0	85.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40	40
Boston	55.0	77.5	100.0	100.0	100.0	105.0	110.0	110.0	120.0	125.0	125.0	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	40	40	40
Buffalo	45.0	70.0	90.0	90.0	90.0	100.0	112.5	112.5	125.0	125.0	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44	40
Chicago	75.0	87.5	125.0	125.0	110.0	110.0	125.0	150.0	150.0	156.3	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	50.0	71.9	100.0	100.0	95.0	105.0	115.0	125.0	131.3	135.0	137.5	137.5	140.0	44½	44½	44½	44½	44½	44½	44½	44½	44½	44	44	44	44	44
Cleveland	57.5	90.0	125.0	137.5	110.0	125.0	137.5	143.8	150.0	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44½
Dallas	56.3	87.5	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	40
Denver	56.3	82.5	100.0	100.0	100.0	112.5	112.5	125.0	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	40	40	40
Detroit	46.9	93.8	125.0	100.0	100.0	100.0	125.0	130.0	140.0	150.0	150.0	150.0	155.0	48	44	44	44	44	44	44	44	44	44	44	44	44	40
Fall River	37.5	70.0	85.0	90.0	85.0	95.0	95.0	95.0	95.0	95.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	47.5	72.0	100.0	100.0	100.0	110.0	115.0	125.0	125.0	137.5	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44	40
Jacksonville	45.0	85.0	100.0	100.0	85.0	85.0	85.0	100.0	125.0	125.0	125.0	125.0	125.0	[1] 48	44	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	62.5	87.5	100.0	100.0	100.0	106.3	125.0	125.0	125.0	125.0	125.0	125.0	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	50.0	75.0	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	48	[2] 48	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	50.0	80.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	40.0	75.0	75.0	100.0	90.0	100.0	100.0	106.3	106.3	115.0	125.0	131.3	131.3	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	31.3	75.0	100.0	100.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	45.0	75.0	100.0	100.0	87.5	87.5	87.5	100.0	100.0	100.0	112.5	112.5	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	45.0	75.0	85.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	120.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	40
Minneapolis	50.0	68.8	81.3	100.0	87.5	87.5	100.0	100.0	100.0	100.0	100.0	100.0	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	56.3	75.0	100.0	112.5	112.5	112.5	131.3	131.3	150.0	156.3	156.3	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	----	75.0	82.5	93.8	85.0	90.8	100.0	100.0	100.0	100.0	106.3	106.3	112.5	----	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	45.0	70.0	90.0	100.0	100.0	90.0	105.0	110.0	110.0	120.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	56.3	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	150.0	165.0	165.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	50.0	87.5	112.5	112.5	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40	40
Philadelphia	45.0	75.0	100.0	112.5	90.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	57.5	75.0	100.0	125.0	112.5	125.0	125.0	143.8	143.8	150.0	156.3	156.3	156.3	48	44	44	44	44	44	44	[3] 44	[3] 44	[3] 44	40	40	40	40
Portland, Oreg	56.3	80.0	100.0	100.0	90.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	40	40
Providence	43.8	70.0	85.0	115.0	90.0	90.0	100.0	100.0	100.0	110.0	110.0	110.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va	43.8	75.0	75.0	75.0	75.0	75.0	75.0	75.0	----	----	----	87.5	87.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	65.0	87.5	100.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	165.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	46.9	68.8	81.3	100.0	80.0	80.0	100.0	87.5	100.0	100.0	100.0	100.0	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	56.3	87.5	112.5	90.0	90.0	100.0	----	----	----	----	112.5	112.5	112.5	44	44	44	44	44	44	----	----	----	----	44	44	44

San Francisco	62.5	87.5	112.5	125.0	100.0	100.0	100.0	100.0	106.3	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Scranton	46.9	75.0	95.0	87.5	87.5	87.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	62.5	100.0	112.5	112.5	100.0	106.3	112.5	112.5	125.0	125.0	125.0	137.5	137.5	44	40	40	40	40	40	40	40	40	40	40	40	40
Washington	55.0	100.0	100.0	106.3	106.3	112.5	125.0	137.5	137.5	137.5	137.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	40	40	40

Painters

Atlanta	33.3	60.0	60.0	85.0	75.0	75.0	75.0	75.0	80.0	85.0	85.0	85.0	85.0	53	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	37.5	68.8	90.0	90.0	80.0	80.0	90.0	100.0	100.0	100.0	100.0	110.0	110.0	48	44	44	44	44	44	44	44	44	44	40	40	40
Birmingham	45.0	75.0	87.5	87.5	75.0	87.5	87.5	100.0	100.0	112.5	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	40
Boston	50.0	82.5	100.0	100.0	100.0	105.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	44	40	40	40	40	40	40	40	40	40	40	40	40
Buffalo	43.8	62.5	87.5	87.5	87.5	87.5	87.5	100.0	100.0	112.5	112.5	112.5	125.0	48	[34] 48	[34] 48	[34] 48	[34] 48	[34] 48	44	44	44	44	44	44	40
Charleston, S. C	25.0	{50.0 {65.0	65.0 80.0	65.0 80.0	50.0 65.0	55.0 65.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Chicago	65.0	87.5	125.0	125.0	110.0	125.0	125.0	150.0	150.0	150.0	162.5	162.5	175.0	44	44	44	44	44	44	44	44	44	44	40	40	40
Cincinnati	50.0	62.5	87.5	100.0	87.5	97.5	107.5	117.5	125.0	131.3	131.3	131.3	133.8	44	44	44	44	44	44	44	44	44	44	40	40	40
Cleveland	50.0	75.0	112.5	112.5	100.0	112.5	125.0	125.0	[13]125.0	125.0	125.0	125.0	131.3	44	44	44	44	44	44	44	44	44	44	44	44	40
Dallas	50.0	87.5	100.0	100.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	50.0	85.0	100.0	112.5	100.0	100.0	112.5	117.5	115.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	40	40	40	40
Detroit	45.0	80.0	100.0	100.0	90.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	37.5	62.5	100.0	100.0	75.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	47.5	70.0	100.0	100.0	90.0	97.5	105.0	105.0	110.0	115.0	122.5	122.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Jacksonville	37.5	75.0	87.5	75.0	75.0	75.0	-------	75.0	100.0	100.0	75.0	{75.0 {62.5	75.0 50.0	48	44	44	44	44	44	-----	44	44	44	44	44	44
Kansas City, Mo	60.0	82.5	100.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	50.0	80.0	100.0	100.0	87.5	87.5	87.5	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	43.8	75.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	45.0	62.5	75.0	87.5	87.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	40	40	40
Manchester	------	62.5	80.0	80.0	70.0	80.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	-----	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	50.0	75.0	100.0	100.0	87.5	87.5	100.0	100.0	100.0	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	50.0	70.0	85.0	85.0	85.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	70.0	100.0	100.0	80.0	90.0	90.0	100.0	90.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	44.0	75.0	100.0	100.0	100.0	112.5	125.0	125.0	137.5	137.5	150.0	150.0	150.0	44	44	44	44	44	[33] 44	40	40	40	40	40	40	40
New Haven	40.9	62.5	87.5	100.0	100.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	40.0	65.0	75.0	90.0	80.0	80.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0	48	44	44	44	44	44	44	44	44	44	44	44	44
New York	50.0	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	{175.0 {150.0	150.0	150.0	{165.0 {150.0	44	44	40	40	40	40	40	40	40	40	40	40	40
Omaha	50.0	75.0	100.0	101.3	90.0	112.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	42.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	[13]100.0	105.0	105.0	105.0	105.0	44	44	40	40	44	44	44	44	44	44	44	44	44
Pittsburgh	55.0	87.5	112.5	112.5	100.0	125.0	137.5	143.8	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44

[2] 40 hours per week, June to August, inclusive.
[13] Old scale; strike pending.
[31] 44 hours per week, June to September, inclusive.
[32] 44 hours per week, July to September, inclusive.
[33] 40 hours per week, Nov. 16 to Mar. 15, inclusive.
[34] 44 hours per week, July to March, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Painters—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Portland, Oreg.	50.0	90.0	100.0	90.0	90.0	100.0	100.0	100.0	112.5	112.5	105.0	105.0	110.0	48	44	44	44	44	44	44	40	40	40	40	40	40
Providence	45.5	62.5	90.0	90.0	80.0	90.0	100.0	100.0	106.3	106.3	106.3	106.3	112.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Richmond, Va.	37.5	60.0	65.0	75.0	67.5	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	48	48	48	48	48	48	48	48	48	44	44	44	44
St. Louis	57.0	75.0	100.0	125.0	100.0	112.5	130.0	130.0	135.0	143.8	143.8	143.8	150.0	44	44	44	44	44	44	44	44	44	44	44	40	40
St. Paul	50.0	70.0	100.0	100.0	80.0	90.0	90.0	90.0	95.0	95.0	95.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	56.3	90.0	100.0	100.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	56.3	87.5	106.3	106.3	100.0	104.4	104.4	104.4	{100.0 / 104.4}	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Scranton	40.0	65.0	87.5	87.5	87.5	87.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	40	40	40	40	40	40
Seattle	56.3	90.0	100.0	93.8	93.8	100.0	105.0	112.5	112.5	112.5	112.5	112.5	112.5	44	40	40	40	40	40	40	40	40	40	40	40	40
Washington	50.0	75.0	90.0	100.0	100.0	112.5	112.5	118.8	118.8	118.8	121.9	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Plasterers																										
Atlanta	45.0	60.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	53	49½	44	44	44	44	44	44	44	44	44	44	44
Baltimore	62.5	87.5	112.5	125.0	125.0	150.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	44	44	44	44	44	44	44	44	44	40	40	40	40
Birmingham	62.5	75.0	75.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Boston	65.0	80.0	100.0	125.0	112.5	112.5	125.0	125.0	150.0	150.0	150.0	150.0	162.5	44	40	40	40	40	40	40	40	40	40	40	40	40
Buffalo	60.0	85.0	100.0	100.0	100.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	162.5	48	44	[35] 40	40	40	40	40	40	40	40	40	40	40
Charleston, S. C.	40.0	75.0	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	[36] 53	48	48	48	48	{44 / 48}	48	44	44	44	44	44	44
Chicago	75.0	87.5	125.0	125.0	110.0	150.0	150.0	150.0	[37]150.0	162.5	162.5	162.5	170.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Cincinnati	68.8	87.5	100.0	112.5	112.5	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½
Cleveland	62.5	90.0	125.0	125.0	125.0	125.0	125.0	156.3	162.5	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Dallas	75.0	112.5	112.5	150.0	137.5	150.0	162.5	162.5	162.5	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	40	40
Denver	75.0	87.5	125.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	68.8	87.5	125.0	125.0	112.5	150.0	156.3	156.3	156.3	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	55.0	85.0	115.0	115.0	95.0	110.0	110.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	62.5	87.5	100.0	112.5	112.5	131.3	150.0	150.0	150.0	155.0	157.5	157.5	157.5	44½	44½	44	44	44	44	44	44	44	44	44	40	40
Jacksonville	56.3	75.0	87.5	87.5	87.5	100.0	125.0	125.0	175.0	175.0	125.0	125.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	75.0	100.0	120.0	120.0	112.5	137.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	[38] 44	44	44	44	44	44	44	44	44	44	44	40

Kansas City, Mo	75.0	100.0	120.0	120.0	112.5	137.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	40
Little Rock	62.5	87.5	112.5	112.5	112.5	112.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	48	[15] 44	44	44	44	44	44	44	44	44	44	44
Los Angeles	75.0	87.5	112.5	125.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	40	40	44	44	44	44	44	40	40
Louisville	65.0	75.0	100.0	112.5	112.5	150.0	150.0	150.0	162.5	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	40	40
Manchester	50.0	90.0	112.5	112.5	112.5	112.5	150.0	137.5	137.5	137.5	137.5	150.0	150.0	48	44	44	44	44	44	44	44	44	44	40	40
Memphis	75.0	87.5	100.0	112.5	112.5	112.5	137.5	156.3	156.3	156.3	156.3	156.3	156.3	44	44	44	44	44	44	44	44	44	44	40	40
Milwaukee	65.0	87.5	87.5	112.5	112.5	112.5	125.0	137.5	137.5	143.8	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	70.0	90.0	112.5	125.0	100.0	112.5	125.0	125.0	137.5	137.5	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	65.0	87.5	125.0	125.0	125.0	125.0	150.0	150.0	162.5	175.0	175.0	175.0	193.8	44	44	44	44	44	44	44	44	44	44	44	40
New Haven	60.0	82.5	100.0	100.0	100.0	112.5	125.0	125.0	137.5	137.5	143.8	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	62.5	75.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	45	45	45	45	45	45	44	45	44	45	45
New York	68.8	93.8	110.8	125.0	125.0	125.0	150.0	150.0	175.0	175.0	175.0	175.0	192.5	44	44	44	44	44	44	44	44	40	40	40	40
Philadelphia	62.5	80.0	125.0	125.0	125.0	125.0	150.0	150.0	175.0	175.0	175.0	150.0	162.5	44	40	40	40	40	40	40	40	40	40	40	40
Pittsburgh	62.5	85.0	115.0	125.0	112.5	137.5	156.3	156.3	166.3	166.3	166.3	166.3	166.3	44	44	44	44	44	44	44	44	40	40	40	40
Portland, Oreg	75.0	110.0	112.5	112.5	112.5	125.0	125.0	137.5	137.5	137.5	150.0	150.0	150.0	44	44	44	44	44	44	44	44	40	40	40	40
Providence	62.5	100.0	115.0	105.0	105.0	115.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	44	40	40	40	40	40	40	40	40	40	40	40
Richmond, Va	37.5	62.5	75.0	87.5	87.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44
St. Louis	75.0	100.0	125.0	137.5	137.5	150.0	175.0	175.0	175.0	175.0	175.0	175.0	175.0	44	44	44	44	44	44	44	44	44	40	40	40
St. Paul	62.5	90.0	112.5	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44
SaltLakeCity	75.0	100.0	125.0	112.5	112.5	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	87.5	112.5	125.0	137.5	127.5	127.5	127.5	150.0	150.0	150.0	150.0	137.5	137.5	44	40	40	40	44	44	44	44	44	44	44	40
Scranton	55.0	80.0	100.0	150.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	40	40	40
Seattle	75.0	112.5	125.0	125.0	112.5	125.0	137.5	137.5	137.5	137.5	150.0	150.0	150.0	44	40	40	40	40	40	40	40	40	40	40	40
Washington	62.5	87.5	100.0	125.0	125.0	150.0	150.0	162.5	162.5	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	40

Plasterers' laborers

Birmingham										50.0	50.0	50.0	50.0								44	44	40	40
Boston	{40.0 / 41.5}	60.0	80.0	80.0	80.0	95.0	95.0	95.0	95.0	105.0	105.0	110.0	110.0	44	40	40	40	40	40	40	40	40	40	40	40
Buffalo					[13] 55.0	75.0	75.0						60.0					44	44	44				44
Chicago	48.0	62.5	106.3	106.3	78.8	78.8	78.8	88.8	93.8	96.8	96.8	96.8	103.8	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	45.0	65.0	85.0	85.0	72.5	82.5	90.0	92.5	95.0	97.5	97.5	97.5	100.0	45	45	45	45	45	45	45	45	45	45	45	45
Cleveland	35.0	57.5	87.5	87.5	60.0	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	48	44	44	44	44	44	44	44	44	44	44	40
Denver	43.8	68.8	81.3	81.3	81.3	81.3	87.5	87.5	87.5	87.5	87.5	87.5	87.5	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	37.5	75.0	100.0	75.0	75.0	100.0	100.0	87.5	87.5	87.5	87.5	90.0	90.0	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	37.5	68.8	90.0	90.0	80.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	61.4	75.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	40
Louisville	38.0	55.0	55.0	80.0	80.0	85.0	85.0	90.0	90.0	90.0	90.0	90.0	90.0	44	44	44	40	40	44	44	44	44	44	40	40
Memphis	32.5	50.0	75.0	62.0	62.5	62.5	75.0	75.0	75.0	75.0	75.0	75.0	75.0	44	44	44	44	44	44	44	44	44	44	40	40

[13] Old scale; strike pending.
[15] 48 hours per week, October to March, inclusive.
[35] 44 hours per week, Nov. 14 to May 14.
[36] Work 53 hours; paid for 54.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Plasterers' laborers—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Milwaukee	32.5	55.0	70.0	85.0	75.0	75.0	85.0	90.0	90.0	90.0	90.0	90.0	90.0	48	[37] 44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	40.6	60.0	85.0	85.0	75.0	85.0	85.0	85.0	90.0	90.0	95.0	95.0	95.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	----	50.0	87.5	87.5	75.0	87.5	100.0	100.0	112.5	112.5	112.5	112.5	125.0	----	44	44	44	44	44	44	44	44	44	44	44	40
New Haven	----	----	----	----	----	----	----	----	----	85.0	85.0	85.0	85.0	----	----	----	----	----	----	----	----	----	----	44	44	44	44
New Orleans	22.5	{35.0 {45.0	50.0 \ 65.0 /	50.0	50.0	65.0	75.0	75.0	75.0	75.0	75.0	75.0	65.0	48	45	45	45	45	45	45	45	45	44	45	45	45
New York	40.6	62.5	87.5	93.8	93.8	106.3	106.3	106.3	{121.9 {125.0	121.9 125.0	121.9 125.0	121.9 125.0	134.0 137.5	44	44	44	44	44	44	44	44	40	40	40	40	40
Philadelphia	43.8	62.5	110.0	110.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	106.3	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	40.0	60.0	90.0	100.0	80.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	50.0	75.0	93.8	90.0	90.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	40	40	40	40	40
St. Louis	[36] 56.3	75.0	87.5	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	40	40	44
Salt Lake City	56.3	75.0	100.0	87.5	87.5	100.0	125.0	125.0	125.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	87.5	106.3	112.5	95.0	83.2	83.2	100.0	100.0	100.0	100.0	100.0	100.0	44	44	40	40	46½	46½	46½	44	44	44	44	44	40
Scranton	----	50.0	58.5	70.0	60.0	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	----	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	50.0	87.5	87.5	87.5	87.5	93.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	40	40	40	40	40	40	40	40	[11] 40	[11] 40	[11] 40	40
Washington	31.3	50.0	75.0	62.5	75.0	75.0	87.5	75.0	75.0	----	----	----	75.0	44	44	44	44	44	44	44	44	44	----	----	----	40

Plumbers

Atlanta	44.4	75.0	75.0	75.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	53	44	44	44	44	44	44	44	44	44	44	44	44
Baltimore	50.0	75.0	87.5	100.0	93.8	100.0	118.8	125.0	125.0	125.0	131.3	137.5	137.5	48	44	44	44	44	44	44	44	44	44	40	40	40
Birmingham	68.8	112.5	150.0	150.0	125.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Boston	60.0	80.0	100.0	100.0	100.0	105.0	112.5	110.0	125.0	125.0	137.5	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Buffalo	56.3	75.0	100.0	100.0	100.0	100.0	112.5	118.8	137.5	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Charleston, S. C.	----	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	----	48	44	44	44	44	44	44	44	44	44	44	44
Chicago	75.0	84.4	125.0	125.0	110.0	110.0	125.0	125.0	150.0	150.0	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	61.8	75.0	100.0	100.0	100.0	112.5	125.0	125.0	135.0	137.5	137.5	137.5	140.0	44½	44	44	44	44	44	44	44	44	44	44	44	44
Cleveland	62.5	90.0	100.0	137.5	110.0	131.3	137.5	137.5	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Dallas	68.8	100.0	125.0	137.5	125.0	125.0	137.5	137.5	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	62.5	87.5	100.0	106.3	106.3	118.8	118.8	125.0	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Detroit	56.3	90.0	125.0	100.0	100.0	125.0	130.0	130.0	140.0	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	43.8	67.5	100.0	100.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	62.5	87.5	100.0	125.0	115.0	122.5	130.0	135.0	135.0	142.5	142.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Jacksonville	62.5	80.0	93.8	112.5	100.0	112.5	125.0	125.0	150.0	162.5	137.5	137.5	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	62.5	100.0	100.0	125.0	112.5	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
														[31] 48	44	44	44	44	44	44	44	44	44	44	44	44

Kansas City, Mo	62.5	100.0	100.0	125.0	112.5	125.0	137.5	137.5	137.5	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44
Little Rock	56.3	87.5	125.0	112.5	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	[31] 48	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	56.3	81.3	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44
Louisville	60.0	70.0	80.0	100.0	100.0	112.5	112.5	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	40
Manchester	31.3	70.0	100.0	90.0	80.0	100.0	100.0	100.0	100.0	100.0	105.0	105.0	112.5	48	44	44	44	44	44	44	44	44	44	44	40
Memphis	62.5	93.8	125.0	125.0	112.5	125.0	125.0	131.3	135.0	142.5	142.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	40	40
Milwaukee	62.5	75.0	87.5	100.0	90.0	100.0	112.5	112.5	118.8	118.8	118.8	118.8	118.8	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	56.3	75.0	100.0	100.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	62.5	87.5	112.5	112.5	112.5	112.5	131.3	137.5	150.0	150.0	150.0	165.0	165.0	44	44	44	44	44	44	44	44	44	44	40	40
New Haven	50.0	75.0	87.5 100.0	100.0	87.5	100.0	106.3	106.3	112.5	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	40
New Orleans	56.3	80.0	90.0	100.0	90.0	90.0	105.0	112.5	125.0	125.0	125.0	105.0	105.0	48	48	48	44	44	44	44	44	44	44	44	44
New York	68.8	75.0	112.5	112.5	112.5	125.0	137.5	137.5	{137.5 150.0}	150.0	150.0	150.0	165.0	44	44	44	44	44	44	44	44	44	44	44	40
Omaha	68.3	87.5	125.0	125.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	{43.8 50.0}	80.0	90.0	115.0	90.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	125.0	44	44	44	44	44	44	44	44	44	44	44	40
Pittsburgh	62.5	93.8	106.3	125.0	112.5	115.6	137.5	143.8	150.0	150.0	156.3	156.3	162.5	44	44	44	44	44	44	44	44	44	44	44	40
Portland, Oreg	75.0	100.0	112.5	112.5	106.3	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	40	40	40	40
Providence	56.3	75.0	100.0	100.0	100.0	100.0	112.5	125.0	125.0	127.5	127.5	127.5	127.5	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	66.3	100.0	125.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	162.5	162.5	44	44	44	44	44	44	44	44	44	44	40	40
St. Paul	62.5	75.0	87.5	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	75.0	100.0	112.5	100.0	100.0	112.5	112.5	120.0	120.0	120.0	120.0	120.0	120.0	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	75.0	75.0	81.3	87.5	100.0	125.0	125.0	125.0	125.0	------	------	125.0	125.0	48	44	44	44	44	44	44	44	44	------	44	40
Scranton	50.0	75.0	87.5	87.5	87.5	93.8	112.5	112.5	118.8	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44
Seattle	81.3	100.0	112.5	112.5	100.0	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	44	40	40	40	40	40	40	40	44	40	40	40
Washington	50.0	87.5	100.0	100.0	106.3	125.0	125.0	131.3	137.5	137.5	137.5	143.7	150.0	48	44	44	44	44	44	44	44	44	44	44	40

Sheet-metal workers

Baltimore	40.0	80.0	80.0	90.0	90.0	90.0	100.0	120.0	120.0	131.3	131.3	131.3	137.5	48	44	44	44	44	44	44	44	44	44	40	40
Birmingham	55.0	75.0	100.0	100.0	85.0	85.0	100.0	100.0	112.5	112.5	112.5	115.0	115.0	44	44	44	44	44	44	44	44	44	44	44	40
Boston	55.0	80.0	100.0	100.0	100.0	105.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	45.0	62.5	87.5	87.5	87.5	100.0	110.0	110.0	111.0	110.0	115.0	115.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44
Chicago	65.0	75.0	125.0	125.0	110.0	110.0	125.0	137.5	137.5	150.0	150.0	150.0	156.3	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	45.0	56.0	70.0	80.0	80.0	90.0	100.0	110.0	116.3	120.0	122.5	122.5	125.0	44	48	48	48	48	48	48	48	48	48	48	48
Cleveland	45.0	85.0	125.0	125.0	104.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	40
Dallas	50.0	87.5	100.0	100.0	100.0	112.5	115.6	125.0	125.0	125.0	125.0	125.0	137.5	48	44	44	44	44	44	44	44	44	44	44	40
Denver	56.3	87.5	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	40.0	80.0	125.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	40

[11] 44 hours per week, September to April, inclusive.
[31] 44 hours per week, June to September, inclusive.
[37] 48 hours per week, November to April, inclusive.
[38] For helpers.

82574°—30——11 [1707]

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Sheet-metal workers—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Indianapolis	47.5	60.0	100.0	100.0	92.5	97.5	105.0	105.0	107.5	115.0	122.5	122.5	127.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	57.5	70.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	50.0	80.0	100.0	100.0	90.0	90.0	100.0	90.0	90.0	90.0	90.0	90.0	90.0	48	[32] 48	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	56.3	68.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	40.0	65.0	80.0	80.0	80.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	110.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	34.4	44.3	100.0	90.0	80.0	90.0	90.0	100.0	100.0	100.0	100.0	{100.0 90.0	100.0 90.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	45.0	75.0	100.0	100.0	87.5	87.5	105.0	112.5	112.5	112.5	112.5	125.0	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	42.5	60.0	67.5	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	105.0	105.0	48	[39] 48	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	70.0	100.0	100.0	90.0	90.0	90.0	90.0	100.0	100.0	100.0	106.3	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	60.0	87.5	100.0	112.5	112.5	112.5	131.3	137.5	150.0	150.0	150.0	150.0	165.0	44	44	44	44	44	44	44	44	44	44	44	44	40
New Haven	47.7	75.0	87.5	100.0	87.5	100.0	106.3	106.3	112.5	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	59.4	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	150.0	150.0	165.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Omaha	42.5	75.0	112.5	112.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	75.0	110.0	100.0	90.0	100.0	112.5	112.5	112.5	118.8	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	55.0	80.0	90.0	112.5	100.0	117.5	131.3	143.8	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	56.3	86.0	100.0	100.0	90.0	100.0	106.3	------	------	112.5	118.8	118.8	118.8	44	44	44	44	44	44	------	------	------	40	40	40	40
Providence	46.0	65.0	100.0	100.0	87.5	95.0	100.0	110.0	110.0	110.0	110.0	110.0	135.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	60.0	75.0	85.0	125.0	100.0	125.0	137.5	137.5	137.5	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	40	40
St. Paul	50.0	70.0	100.0	100.0	90.0	90.0	90.0	90.0	100.0	100.0	100.0	106.3	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	57.5	87.5	100.0	90.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	106.3	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	68.8	100.0	112.5	125.0	106.3	106.3	106.3	106.3	106.3	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Scranton	43.8	75.0	87.5	87.5	87.5	93.8	112.5	112.5	118.8	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	56.3	90.0	100.0	100.0	93.8	100.0	106.3	------	------	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	------	------	40	40	40	40
Washington	50.0	75.0	92.5	100.0	100.0	106.3	120.0	125.0	131.3	137.5	137.5	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Stonecutters																										
Baltimore	50.0	75.0	100.0	100.0	90.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44½	44	44	44	44	44	44	44	44	44	44	44	44
Boston	56.3	70.0	100.0	100.0	100.0	110.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	56.3	75.0	100.0	100.0	100.0	100.0	120.0	125.0	125.0	135.0	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	62.5	81.3	125.0	125.0	102.5	102.5	125.0	137.5	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	56.3	77.5	115.0	125.0	125.0	125.0	125.0	125.0	132.5	150.0	150.0	160.0	150.0	44½	44	44	44	44	44	44	44	44	44	44	44	40
Cleveland	60.0	80.0	112.5	125.0	110.0	125.0	125.0	135.0	135.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
																										44

Cincinnati	56.3	77.5	115.0	125.0	125.0	125.0	125.0	125.0	132.5	150.0	150.0	150.0	150.0	44½	44	44	44	44	44	44	44	44	44	44	44	44	40
Cleveland	60.0	80.0	112.5	125.0	110.0	125.0	125.0	135.0	135.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	40	40
Dallas	62.5	87.5	100.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	62.5	87.5	100.0	112.5	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	62.5	80.0	125.0	112.5	112.5	125.0	125.0	137.5	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	56.3	75.0	100.0	100.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	56.3	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	55.0	65.0	100.0	100.0	80.0	87.5	112.5	80.0	-------	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	-----	44	44	44	44	44
Louisville	56.3	75.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	115.0	115.0	115.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	65.0	75.0	100.0	112.5	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	50.0	------	100.0	90.0	90.0	106.3	112.5	112.5	125.0	125.0	125.0	125.0	125.0	44	-----	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	56.3	75.0	87.5	112.5	100.0	112.5	112.5	125.0	125.0	137.5	131.3	131.3	131.3	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	68.8	84.4	112.5	112.5	112.5	125.0	131.3	137.5	150.0	150.0	150.0	168.8	168.8	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	------	------	------	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	-----	-----	-----	44	44	44	44	44	44	44	44	44	44	44	44
New York	68.8	84.4	100.0	112.5	112.5	125.0 112.5	131.3	137.5	150.0	150.0	150.0	168.8	168.8	44	44	44	44	44	44	44	44	44	44	44	44	44	44	40
Philadelphia	50.0	82.5	135.0	135.0	100.0	112.5	125.0	125.0	131.3	131.3	131.3	131.3	131.3	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	54.5	75.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	40
St. Louis	56.3	85.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	56.3	75.0	87.5	112.5	100.0	112.5	112.5	125.0	125.0	137.5	131.3	131.3	131.3	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	------	------	------	------	------	------	------	112.5	112.5	112.5	112.5	112.5	112.5	-----	-----	-----	-----	-----	-----	-----	-----	44	44	44	40	44	44
Scranton	50.0	60.0	90.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	40	44	44
Washington	54.0	87.5	100.0	100.0	100.0	112.5	112.5	-------	-------	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	-----	-----	44	44	44	44

Structural-iron workers

Atlanta	62.5	80.0	95.0	95.0	-------	80.0	100.0	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	-----	44	44	44	44	44	44	44	44
Baltimore	56.3	100.0	125.0	125.0	112.5	112.5	125.0	137.5	137.5	150.0	150.0	150.0	165.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Birmingham	62.5	80.0	100.0	------	-------	105.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	-----	-----	44	44	44	41	44	44	44	44
Boston	62.5	80.0	100.0	100.0	100.0	105.0	110.0	110.0	125.0	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	60.0	85.0	100.0	125.0	100.0	100.0	112.5	125.0	125.0	125.0	131.3	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	68.0	87.5	125.0	125.0	105.0	105.0	125.0	125.0	137.5	150.0	150.0	150.0	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	62.5	75.0	100.0	90.0	95.0	105.0	115.0	125.0	131.3	135.0	137.5	137.5	140.0	44½	44	44	44	44	44	44	44	44	44	44	44	44
Cleveland	65.0	100.0	125.0	125.0	110.0	137.5	150.0	150.0	150.0	150.0	150.0	150.0	150.0	[7] 44	44	44	44	44	44	44	44	44	44	44	44	40
Dallas	62.5	75.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	56.3	87.5	100.0	103.1	103.1	115.6	115.6	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	60.0	90.0	125.0	125.0	100.0	112.5	125.0	125.0	137.5	137.5	137.5	150.0	150.0	[31] 48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	65.0	85.0	125.0	125.0	112.5	125.0	125.0	125.0	135.0	140.0	145.0	145.0	145.0	44	44	44	44	44	44	44	44	41	44	44	44	44
Jacksonville	------	------	------	------	------	------	------	------	------	------	125.0	125.0	125.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	44	44	44
Kansas City, Mo.	62.5	90.0	110.0	110.0	107.5	107.5	125.0	125.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	50.0	75.0	87.5	100.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	[32] 48	44	44	44	44	44	44	44	44	44	44	44	44

[7] 48 hours per week, October to April, inclusive.
[31] 44 hours per week, June to September, inclusive.
[32] 44 hours per week, July to September, inclusive.
[39] 44 hours per week, June to August, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Structural-iron workers—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Louisville	50.0	80.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	62.5	87.5	100.0	.....	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	125.0	44	44	44	.....	44	44	44	44	44	44	44	44	44
Milwaukee	56.3	80.0	100.0	100.0	90.0	100.0	112.5	112.5	112.5	120.0	120.0	120.0	120.0	[37] 44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	56.3	87.5	87.5	100.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N.J.	62.5	87.5	112.5	112.5	112.5	125.0	150.0	150.0	150.0	175.0	175.0	175.0	187.5	44	44	44	44	44	44	44	44	44	44	44	44	40
New Haven	62.5	92.5	106.3	106.3	100.0	106.3	125.0	125.0	125.0	137.5	137.5	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	62.5	75.0	100.0	100.0	100.0	100.0	106.3	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	62.5	87.5	112.5	112.5	112.5	112.5	150.0	150.0	150.0	175.0	175.0	175.0	192.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Omaha	58.8	90.0	115.0	112.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	60.0	92.5	112.5	112.5	100.0	112.5	125.0	125.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	[2] 44
Pittsburgh	62.5	100.0	100.0	125.0	100.0	125.0	137.5	143.8	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	62.5	100.0	112.5	101.3	101.3	112.5	112.5	112.5	112.5	125.0	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Providence	56.3	92.5	100.0	100.0	92.5	100.0	112.5	112.5	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	56.3	92.5	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	65.0	92.5	125.0	125.0	106.3	125.0	150.0	150.0	150.0	150.0	150.0	150.0	175.0	44	44	44	44	44	44	44	44	44	44	44	40	40
St. Paul	56.3	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	62.5	100.0	112.5	100.0	90.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	75.0	100.0	112.5	125.0	112.5	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Scranton	56.3	87.5	100.0	112.5	100.0	100.0	112.5	112.5	137.5	137.5	137.5	137.5	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	62.5	100.0	112.5	112.5	100.0	112.5	112.5	112.5	112.5	112.5	125.0	125.0	125.0	44	40	44	44	44	44	44	44	44	44	44	44	44
Washington	56.3	92.5	98.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	150.0	165.0	165.0	44	44	44	44	44	44	44	44	44	44	44	44	40

Typesetting-machine operators: Book and job

Atlanta	43.8	46.9	57.5	[13] 75.0	80.0	80.0	80.0	80.0	80.0	100.0	100.0	100.0	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Baltimore	46.9	60.4	81.3	83.3	83.3	90.9	90.9	90.9	90.9	90.9	90.9	90.9	100.0	48	48	48	48	48	44	44	44	44	44	44	44	44
Birmingham	52.5	57.3	78.1	80.0	80.0	80.0	80.0	85.2	92.5	92.5	92.5	92.5	92.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Boston	45.8	59.4	77.1	91.5	91.5	91.5	96.5	96.5	96.5	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Buffalo	50.0	59.4	71.9	95.5	95.5	95.5	104.5	109.1	111.4	115.9	115.9	115.9	118.2	48	48	48	44	44	44	44	44	44	44	44	44	44

Charleston, S. C.	.....	50.0	50.0	103.4	103.4	[40] 95.5	88.6	95.5	88.6	88.6	88.6	88.6	88.6	.....	48	48	44	44	44	44	44	44	44	44	44
Chicago	50.0	77.9	98.8	109.2	109.2	113.2	119.1	119.1	119.1	125.9	125.9	125.9	132.7	48	48	48	44	44	44	44	44	44	44	44	44
Cincinnati	49.0	58.3	81.3	104.5	104.5	104.5	109.1	109.1	109.1	113.6	113.6	115.9	118.2	48	48	44	44	44	44	44	44	44	44	44	44
Cleveland	53.8	68.8	87.5	93.8	93.8	93.8	100.0	109.1	111.4	113.6	113.6	115.9	115.9	48	48	48	48	44	44	44	44	44	44	44	44
Dallas	[41]12.5	[41]12.0	[41]15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	104.5	[41] 15.3	[41] 15.5	48	48	48	44	44	44	44	44	44	44	44
Denver	54.2	65.6	81.3	81.3	95.5	95.5	95.5	102.3	102.3	102.3	102.3	102.3	102.3	48	48	48	48	44	44	44	44	44	44	44	44	44
Detroit	55.0	85.0	100.0	100.0	100.0	105.0	105.0	105.0	120.0	125.0	125.0	130.0	131.0	48	48	48	48	44	44	48	44	44	44	44	44	44
Fall River	.....	46.9	62.5	72.7	72.7	72.7	81.8	81.8	81.8	81.8	81.8	81.8	81.8	.....	48	48	44	44	44	44	44	44	44	44	44	44
Indianapolis	50.0	60.4	81.3	100.0	92.7	95.5	95.5	98.0	100.0	102.3	104.5	106.8	111.4	48	48	48	44	44	44	44	44	44	44	44	44	44
Jacksonville	43.8	58.3	75.0	102.3	102.3	81.8	81.8	[40] 88.6	98.9	98.9	98.9	98.9	98.9	48	48	48	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	55.2	69.8	78.1	89.6	89.6	94.3	97.2	99.4	101.7	104.0	105.1	107.4	107.4	48	48	48	48	48	44	44	44	44	44	44	44	44
Little Rock	50.0	50.0	72.9	72.9	70.0	.....	.....	85.2	96.6	96.6	92.0	92.0	94.3	48	48	48	48	44	.....	.....	44	44	44	44	44	44
Los Angeles	58.3	70.8	81.3	104.5	104.5	104.5	110.2	110.2	116.6	116.6	120.5	120.5	120.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Manchester	35.4	41.7	66.7	77.3	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	48	48	48	44	44	44	44	44	44	44	44	44	44
Milwaukee	47.9	60.4	75.0	87.5	95.5	95.5	95.5	95.5	95.5	100.0	102.3	102.3	104.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	61.5	87.5	87.5	95.5	95.5	95.5	99.5	95.5	95.5	95.5	95.5	95.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Newark, N. J.	47.9	72.9	91.7	111.4	102.3	109.1	115.9	115.9	118.2	120.5	122.7	125.0	127.3	48	48	48	44	44	44	44	44	44	44	44	44	44
New Haven	45.8	45.8	58.3	58.3	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	48	48	48	48	44	44	44	44	44	44	44	44	44
New Orleans	.....	53.3	76.7	76.7	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	.....	45	45	45	44	44	44	44	44	44	44	44	44
New York	54.2	75.0	93.8	113.6	113.6	113.6	120.5	120.5	122.7	125.0	127.3	129.5	131.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Omaha	50.0	68.8	87.5	93.2	93.2	93.2	93.2	93.2	93.2	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Philadelphia	43.8	64.6	93.8	93.8	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Pittsburgh	47.9	68.8	87.5	106.8	106.8	106.8	106.8	106.8	106.8	111.4	111.4	111.4	113.6	48	48	48	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	65.6	100.0	100.0	110.0	110.0	104.5	104.5	111.4	111.4	114.7	114.8	114.8	114.8	48	48	48	44	44	44	44	44	44	44	44	44	44
Providence	47.9	54.2	72.9	79.2	86.4	86.4	97.7	97.7	97.7	97.7	97.7	97.7	97.7	48	48	48	48	44	44	44	44	44	44	44	44	44
St. Louis	50.0	63.8	87.5	101.0	101.0	101.0	106.0	106.0	106.0	111.0	111.0	111.0	111.0	48	48	48	44	44	44	44	44	44	44	44	44	44
St. Paul	50.0	61.5	83.3	87.5	95.5	90.9	95.5	95.5	95.5	95.5	95.5	95.5	95.5	48	48	48	48	44	44	44	44	44	44	44	44	44
San Francisco	64.4	68.8	81.3	104.5	104.5	104.5	104.5	115.9	115.9	115.9	115.9	115.9	118.2	45	48	48	44	44	44	44	44	44	44	44	44	44
Scranton	45.8	54.2	81.3	85.4	85.2	90.9	90.9	110.0	100.0	102.3	104.5	104.5	104.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Seattle	.....	.....	.....	.....	.....	.....	.....	.....	93.8	123.2	123.2	123.2	[40]133.9	.....	.....	.....	.....	.....	.....	.....	44	42	42	42	42
Washington	50.0	75.0	87.5	95.5	95.5	95.5	95.5	95.5	95.5	102.3	102.3	104.5	106.8	48	[16] 48	[16] 48	44	44	44	44	44	44	44	44	44	44

[2] 40 hours per week, June to August, inclusive.
[13] Old scale; strike pending.
[16] 44 hours per week for 3 months, between June 1 and Sept. 30.
[37] 48 hours per week, November to April, inclusive.
[40] Machinist operators.
[41] Per 1,000 ems nonpareil.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1930, BY CITIES—Continued

Typesetting-machine operators, daywork: Newspaper

City	Rates per hour (cents)													Hours per week											
	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1913	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Atlanta	[41] 8.5	[41] 8.5	[41] 9.0	[41] 10.5	[41] 10.0	[41] 10.0	[41] 10.5	[56] 12.0	[56] 12.0	[56] 12.0	[41] 12.0	[41] 12.0	[41] 12.0	48	48	48	[21] 48	[21] 48	[21] 48	[21] 48	[21] 48	48	48	48	48	48
Baltimore	53.6	65.5	93.3	93.3	95.5	95.5	106.8	106.8	110.2	110.2	110.2	114.8	114.8	42	42	45	45	44	44	44	44	44	44	44	44	44
Birmingham	52.5	67.5	67.5	67.5	82.5	82.5	82.5	[41] 12.0	92.5	95.0	97.5	100.0	102.5	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42	[17] 42
Boston	63.0	83.0	95.0	95.0	107.0	107.0	112.0	117.0	117.0	125.0	125.0	125.0	125.0	[18] 42	[18] 42	[18] 42	[18] 42	44	44	44	44	[17] 44	[17] 44	[17] 44	[17] 44	[17] 44
Buffalo	50.0	65.6	71.9	87.5	87.5	87.5	95.8	95.8	102.1	102.1	102.1	106.3	108.3	48	48	48	48	48	48	48	48	48	48	48	48	48
Charleston, S. C.	[41] 9.0	[41] 9.0	57.1	94.8	94.8	87.5	87.5	87.5	87.5	87.5	92.7	92.7	92.7	[17] 39	[17] 39	[17] 42	48	48	48	48	48	48	48	48	48	48
Chicago	[42] 50.0	[44] 64.0	[44] 72.0	[115.0 / [45] 96.0	115.0	115.0	129.0	129.0	129.5	135.6	138.0	140.0	140.0	48	[17] 45	[17] 45	48	48	[31] 48	[31] 45	[31] 45	45	45	45	45	45
Cincinnati	52.1	87.5	107.3	107.3	107.3	113.3	113.3	113.8	113.8	113.8	118.3	118.3	122.8	[47] 47½	48	45	45	45	45	45	45	45	45	45	45	45
Cleveland	53.8	68.8	87.5	93.8	96.9	103.1	107.3	107.3	111.6	116.7	119.0	119.0	119.0	48	48	48	48	48	48	48	48	45	45	45	45	45
Dallas	[41] 12.5	[41] 12.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 16.3	[41] 16.3	[41] 16.3	[41] 16.3	[41] 16.3	39	[48] 39	[48] 39	[48] 39	[17] 36	[17] 36	[17] 36	[17] 36	[17] 36	[17] 36	[17] 36	[17] 36	[17] 36
Denver	63.3	72.7	97.8	97.8	93.3	93.3	103.3	103.3	103.3	103.3	110.6	114.8	119.9	45	45	45	45	45	45	45	45	45	45	45	44	44
Detroit	55.0	74.5	87.0	97.0	97.0	104.5	113.0	113.0	120.0	125.0	125.0	130.0	131.0	48	[21] 48	[21] 48	[21] 48	[21] 48	[21] 48	[21] 48	[21] 48	[21] 48	45	45	45	45
Fall River	45.8	50.0	75.0	79.2	79.2	79.2	87.5	87.5	87.5	87.5	87.5	87.5	95.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Indianapolis	50.0	60.4	81.3	93.8	89.6	100.0	100.0	100.0	104.2	106.3	106.3	110.9	110.9	48	48	48	48	48	48	48	48	48	48	48	48	48
Jacksonville	[41] 9.0	58.3	83.3	83.3	83.3	83.3	83.3	89.6	100.0	100.0	100.0	100.0	100.0	45	48	48	48	48	48	48	48	48	48	48	46	46
Kansas City, Mo.	59.4	68.8	90.6	90.6	90.6	90.6	90.6	95.8	102.1	104.2	104.2	108.3	108.3	48	48	48	48	48	48	48	48	48	48	48	48	48
Little Rock	[41] 9.5	78.6	90.5	90.5	102.4	102.4	102.4	107.1	103.6	103.6	107.1	102.3	102.3	42	42	42	42	42	42	42	42	42	42	42	44	44
Los Angeles	62.2	75.6	86.7	86.7	101.1	101.1	107.8	107.8	114.0	114.0	117.8	117.8	117.8	45	45	45	45	45	45	45	45	45	45	45	45	45
Louisville	49.0	62.5	87.5	82.9	87.5	87.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Manchester	35.4	41.7	66.7	70.8	72.9	72.9	80.2	82.3	83.3	83.3	83.3	83.3	88.9	48	48	48	48	48	48	48	48	48	48	48	48	45
Memphis	[41] 9.5	[49] 9.5	[41] 12.0	[41] 12.5	[41] 12.5	[41] 12.5	[41] 12.5	[41] 12.5	[41] 12.5	[41] 12.5	[41] 12.5	[41] 12.5	[41] 12.5	[17] 45	[17] 45	[17] 45	[17] 45	[17] 45	[17] 45	[17] 45	45	45	45	45	45	45
Milwaukee	45.8	56.3	77.1	93.8	93.8	93.8	97.9	102.5	102.5	106.3	106.3	110.4	117.8	48	48	48	48	48	48	48	48	48	48	48	48	45
Minneapolis	[41] 10.0	[41] 10.0	[41] 11.0	[41] 12.5	[41] 12.5	[41] 12.5	[41] 12.5	[41] 12.0	[41] 12.0	[41] 12.0	121.4	121.4	121.4	48	48	48	[17] 36	[17] 36	[17] 36	[17] 36	48	48	48	42	42	42
Newark, N. J.	60.9	76.1	89.1	110.9	110.9	110.9	110.9	119.6	121.7	130.4	132.6	134.8	134.8	46	46	46	46	46	46	46	46	46	46	46	46	46
New Haven	46.9	50.0	72.9	79.2	79.2	79.2	85.4	85.4	87.5	89.6	89.6	91.7	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
New York	66.7	96.7	122.2	122.2	122.2	122.2	128.9	133.3	133.3	140.0	142.2	144.4	144.4	45	45	45	45	45	45	45	45	45	45	45	45	45
Omaha	50.0	68.8	87.5	87.5	87.5	87.5	90.6	90.6	90.6	96.9	97.9	99.0	100.0	48	48	48	48	48	48	48	48	48	48	48	48	48
Philadelphia	45.8	66.7	81.3	79.2	79.2	79.2	87.5	87.5	87.5	91.3	91.3	91.3	91.3	48	48	48	48	48	48	48	48	48	46	46	46	46
Pittsburgh	55.0	77.0	87.5	111.8	111.8	118.9	121.1	121.1	125.6	126.7	126.7	126.7	128.9	48	[17] 45	48	46½	46½	45	45	45	45	45	45	45	45
Portland, Oreg.	68.3	100.0	106.7	106.7	106.7	106.7	106.7	106.7	106.7	106.7	106.7	113.3	113.3	45	45	45	45	45	45	45	45	45	45	45	[46]	45
Providence	47.9	66.7	87.5	100.0	95.8	95.8	104.2	111.1	104.2	108.3	108.3	108.3	112.5	48	48	48	48	48	48	48	48	48	48	48	48	48

Providence	47.9	66.7	87.5	100.0	95.8	95.8	104.2	111.1	104.2	108.3	108.3	108.3	112.5	48	48	48	48	48	48	48	48	48	48	48	48
Richmond, Va	41.7	56.3	56.3	87.5	87.5	87.5	87.5	87.5	94.8	94.8	94.8	94.8	94.8	48	48	48	48	48	48	48	48	48	48	48	48
St. Louis	[41]11.0	[41]11.5	[41]15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 17.0	[41] 17.5	[41] 18.2	110.9	114.1	114.1	120.7	[50] 39	[50] 42	46	46	46	46	46	46	46	46	46	46
St. Paul	54.5	63.0	94.0	88.8	89.8	89.8	93.8	101.3	101.3	101.3	101.3	101.3	101.3	48	[51] 48	[51] 48	[51] 48	[51] 48	[51] 48	[51] 48	[51] 48	48	48	48	48
Salt Lake City	[41]10.0	[41]11.0	[52]11.0	[53] 11.0	[41] 13.5	[41] 13.5	[41] 13.5	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41] 15.0	[41]17.5	48	[54] 48	[54] 46½	[54] 46½	[55] 46½	[55] 46½	[55] 46½	[21] 43½	[21] 43½	[21] 43½	[21] 43½	43½	43½
San Francisco	64.4	75.6	93.8	107.8	107.8	107.8	107.8	115.6	115.6	115.6	120.0	120.0	120.5	45	45	45	45	45	45	45	45	45	45	45	45
Scranton	47.9	60.4	81.3	87.5	87.5	95.8	95.8	104.2	110.4	112.5	114.9	114.9	114.9	48	48	48	48	48	48	48	48	48	48	47	47	47
Seattle	75.0	100.0	114.3	114.3	114.3	114.3	121.4	121.4	121.4	123.2	123.2	123.2	123.2	42	42	42	42	42	42	42	42	42	42	42	42	42
Washington	60.7	92.9	104.0	104.0	104.0	104.0	110.0	110.0	128.6	128.6	128.6	128.6	128.6	42	42	42	42	42	42	42	42	42	42	42	42	42

[17] Minimum; maximum, 8 hours per day.
[18] Actual hours worked; minimum, 6; maximum, 8 hours per day.
[21] Maximum; minimum, 7 hours per day.
[31] 44 hours per week, June to September, inclusive.
[41] Per 1,000 ems nonpareil.
[42] For 3,500 ems per hour; for 4,500 ems per hour, 55 cents and 1 cent bonus for each additional 100 ems per hour.
[44] For 3,500 ems per hour; for 4,500 ems per hour, 70 cents and 1 cent bonus for each additional 100 ems per hour.
[45] For 4,000 ems per hour; for 4,500 ems per hour, $1.06 and 1 cent bonus for each additional 100 ems per hour.
[46] For 4,500 ems per hour; 1 cent bonus for each additional 100 ems per hour.
[47] Work 47¾ hours, paid for 48.
[48] Maximum; minimum, 5½ hours per day.
[49] Per 1,000 ems nonpareil and 45 cents per day bonus.
[50] Minimum; maximum, 7⅔ hours per day.
[51] Maximum; minimum, 7½ hours per day.
[52] Per 1,000 ems nonpareil and $1 per day bonus.
[53] Per 1,000 ems nonpareil and $1.25 per day bonus.
[54] Maximum; minimum, 6½ hours per day.
[55] Maximum; minimum, 40½ hours per week.
[56] Per 1,000 ems minion.

Recent Changes in Wages and Hours of Labor

INFORMATION received by the bureau regarding recent wage changes is presented below in two distinct groups: Part 1 relates to manufacturing establishments only, the data being reported direct to the bureau by the same establishments that report monthly figures regarding volume of employment; while part 2 presents data obtained from new trade agreements and other miscellaneous sources. Although the effort is made to do so, it is not always possible to avoid duplication of data as between parts 1 and 2.

Part 1.—Wage Changes in Manufacturing Industries, July, 1930

SEVEN establishments in three industries reported wage-rate increases during the month ending July 15. These increases averaged 6.0 per cent and affected 112 employees, or 9 per cent of all employees in the establishments concerned. One hundred and seventeen establishments in 29 industries reported wage-rate decreases during the same period. These decreases averaged 10.3 per cent and affected 20,034 employees, or 74 per cent of all employees in the establishments concerned. Of the 117 wage-rate decreases, 27 were in sawmills and affected 5,139 employees; 11 were in the millwork industry and affected 1,104 employees; 13 were in foundries and machine shops and affected 1,570 employees; and 11 were in the silk-goods industry and affected 1,327 employees.

TABLE 1.—WAGE CHANGES OCCURRING BETWEEN JUNE 15, 1930, AND JULY 15, 1930

Industry	Establishments		Per cent of increase or decrease in wage rate		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees: In establishments reporting increase or decrease in wage rates	Per cent of employees: In all establishments reporting
			Increases				
Machine tools	150	1	5.0	5.0	70	10	(1)
Paper and pulp	217	1	5.0	5.0	13	11	(1)
Printing, book and job	438	5	5.0–13.0	9.0	29	7	(1)
			Decreases				
Slaughtering and meat packing	206	1	10.0	10.0	22	100	(1)
Confectionery	338	2	10.0–15.0	11.6	64	100	(1)
Flour	356	3	5.0–10.0	8.8	45	88	(1)
Cotton goods	465	3	10.0–15.0	11.2	1,285	62	1
Hosiery and knit goods	351	7	4.7–15.0	10.1	684	16	1
Silk goods	287	11	8.0–20.0	9.7	1,327	85	2
Woolen and worsted goods	187	1	10.0	10.0	190	100	(1)
Dyeing and finishing textiles	118	2	10.0	10.0	632	100	2
Clothing, men's	349	1	25.0	25.0	5	5	(1)
Shirts and collars	116	1	25.0	25.0	107	100	1
Clothing, women's	412	6	5.0–10.9	10.0	322	60	1

[1] Less than one-half of 1 per cent.

TABLE 1.—WAGE CHANGES OCCURRING BETWEEN JUNE 15, 1930, AND JULY 15, 1930—Continued

Industry	Establishments		Per cent of increase or decrease in wage rate		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees	
						In establishments reporting increase or decrease in wage rates	In all establishments reporting
			Decreases				
Iron and steel	202	2	10.0	10.0	1,695	91	1
Structural iron work	176	1	10.0	10.0	20	38	(1)
Foundry and machine-shop products	1,083	13	4.8–20.0	12.3	1,570	98	1
Machine tools	150	2	3.0–10.0	7.1	96	56	(1)
Steam fittings and steam and hot-water heating apparatus	112	3	7.5–10.0	8.6	391	74	1
Lumber, sawmills	632	27	6.0–20.0	10.1	5,139	89	5
Lumber, millwork	332	11	10.0–20.0	11.1	1,104	92	4
Furniture	414	3	10.0–15.0	14.5	237	44	(1)
Boots and shoes	322	6	10.0	10.0	1,564	100	1
Paper and pulp	217	1	10.0	10.0	285	100	(1)
Brick, tile, and terra cotta	649	2	10.0–16.0	11.8	65	92	(1)
Glass	146	1	10.0	10.0	84	68	(1)
Stamped and enameled ware	80	1	10.0	10.0	118	100	1
Cigars and cigarettes	201	2	10.0	10.0	184	62	(1)
Automobiles	209	1	10.0	10.0	78	80	(1)
Automobile tires	42	1	9.0	9.0	2,500	85	5
Paint and varnish	172	1	10.0	10.0	44	100	(1)
Rubber goods, other than rubber boots, shoes, tires, and tubes	76	1	10.0	10.0	168	100	1

(1) Less than one-half of 1 per cent.

Part 2.—Changes in Wages and Hours Reported by Trade-Unions, etc., May to August, 1930

WAGE and hour changes reported in this group principally involve those of union workers. There were reported to the bureau for these months changes involving 25,488 workers.

Wage changes in building trades ranged from 2½ to 14 cents per hour. Generally a tendency toward smaller increases was shown, there being more increases of 2½ to 6 cents than of higher amounts.

In the printing trades only a few changes were reported, the range being from 38 cents to $2 per week.

Of the 25,488 workers for which changes were reported, 24,307 were reported to have adopted the 5-day week. This short week was, however, only temporarily effective in the case of 12,495 railroad shopmen.

No decreases in wages were reported.

TABLE 2.—CHANGES IN WAGES AND HOURS, MAY TO AUGUST, 1930

Industry, occupation, and city	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Building trades:					
Bricklayers—		*Per hour*	*Per hour*		
Providence, R. I.—Marble setters	June 1	$1.40	$1.50	44	44
Rochester, N. Y.	July 1	1.43¾	1.50	44	40
Carpenters—					
Rochester, N. Y. and vicinity	do	1.15	1.20	44	40
Washington, D. C., and vicinity	May 1	1.25	1.37½	44	40
Electricians—					
Dubuque, Iowa	Apr. 1	.95	.97½	44	44
Hollywood, Calif.	May 1	1.03⅛	1.06¼	44	44
Heat and frost insulators, Omaha, Nebr.	Aug. 2	1.28	1.32	40	40
Painters—					
Albany, N. Y.	May 5	1.25	1.30	44	40
Baltimore, Md.	June 26	1.10	1.12½	40	40
Rochester, N. Y.	July 1	1.15	1.20	44	40
St. Louis, Mo.	do	1.43¾	1.50	40	40
Plumbers and steamfitters—					
Beaver Valley, Pa.	May 1	1.25	1.25	44	40
Burlington, Iowa	June 1	1.00	1.10	44	44
Detroit, Mich.	June 14	1.50	1.50	44	40
Newton, Mass.—					
Journeymen	June 2	1.37½	1.50	44	40
Helpers	do	.90	1.04	44	40
Southampton, N. Y.	June 14	1.25	1.37½	48	40
Salt Lake City, Utah	(1)	1.20	(1)	44	40
Terre Haute, Ind.	May 1	1.25	1.31¼	44	44
Westchester Co., N. Y.	July 1	1.65	1.65	(1)	40
Worcester, Mass.	June 26	1.25	1.37½	44	40
Roofers, Rochester, N. Y.	May 1	1.05	1.05	44	40
Sheet-metal workers—					
Des Moines, Iowa	July 1	1.25	1.25	44	40
Portland, Oreg.	do	1.18¾	1.25	40	40
Stonecutters, Cleveland, Ohio	Aug. 1	1.37½	1.50	44	40
Structural-iron workers—					
Boston, Mass.	July 1	1.37½	1.50	44	40
Kansas City, Mo.	do	1.25	1.31¼	44	40
Chauffeurs and teamsters:		*Per week*	*Per week*		
Chicago, Ill. (bakery)	May 1	(1)	[2] $50.00	[3] 10	[3] 10
Oakland, Calif. (deliverymen)	do	[4] $170.00	[4] 185.00	[3] 9	[3] 9
Clothing, Union City, N. J.:					
Fur workers, male	May 10	31.00 45.00	36.00 48.00	40	40
Fur workers, female	do	29.00 34.00	32.00 37.00		
Metal trades: Pattern makers, Seattle, Wash.	May 3	(1)	(1)	44	40
Printing and publishing:					
Compositors—					
La Porte, Ind.	Aug. 1	42.00	43.00	44	44
Muskegon, Mich.—					
Newspaper, day	do	43.00	43.50	48	48
Newspaper, night	do	45.00	45.50		
Paducah, Ky.—					
Job work, day	May 1	35.00	37.00	44	44
Job work, night	do	38.00	40.00		
Electrotypers, Des Moines, Iowa	June 1	45.00	47.00	44	44
Stereotypers—					
Akron, Ohio	May 1	51.00	52.50	44	44
Omaha, Nebr.—					
Newspaper, day	Aug. 1	47.62	48.00	48	48
Newspaper, night	do	50.50	51.00		
Railway workers:					
Clerks, switchboard operators, etc., Atlanta Joint Terminals	Aug. 15	*Per day* $4.92	*Per day* $4.94½	48	48
Shopmen, B. & O. R. R.	June 23	(1)	(1)	48	[5] 40

[1] Not reported.
[2] And 3 per cent on sales in excess of $400.
[3] Per day.
[4] Per month.
[5] Trial for summer.

Return to 48-Hour Week in Queensland

WHEN the Industrial Court of Queensland recently denied the employers' application for a reduction in the basic wage and an increase in the length of the standard week, it coupled with its award the statement that the representatives of the public service and of the railway department had both made out a case against the 44-hour week, and that if either or both of these chose to make an application for longer hours, dissociated from the general appeal then under consideration, the court would be prepared to entertain it. (See Labor Review, August, 1930, p. 182.)

Acting upon this suggestion, the public service commissioner and the railway commissioner promptly put in applications for an increase of the standard week to 48 hours, and the matter was argued before the court early in May. The Queensland Industrial Gazette, in its issue for June 24, 1930, gives a résumé of the arguments. The railway commissioner applied for an increase of hours for five classes of public employees: (1) Those employed in institutions; (2) miscellaneous workers such as caretakers, cleaners, watchmen, and elevator operators; (3) the police; (4) harbor and marine employees; and (5) surveyors' laborers and cooks. The railway commissioner asked that the increased hours should apply not only to those employed directly upon the railroads but also to those in the railroad shops, to locomotive hostlers, and others, who in some instances had obtained the 44-hour week as far back as 1918 and 1919. The principal arguments in favor of the change were first, that the financial position was unsatisfactory and that it was highly desirable to decrease expenses, and secondly that the work done by the classes affected was not of such a nature that output could be increased by the shortening of hours. The contention of the workers opposing the change was that in some cases the nature of the work, as, for instance, with attendants in insane asylums, demanded such close attention and involved such nervous strain that an 8-hour day was too long, that in some cases the work was too arduous or carried on under such conditions that the increased hours would constitute an undue strain, and that in most cases there were possibilities of efficiency of management with resultant economies which should be tried out before the workers' hours were increased. On the railroads, especially, other than strictly economic questions were involved.

> If the service were conducted as an ordinary business enterprise it would not supply transportation as had been done at below the cost of its production. Yet that had to be done to save the country millions of pounds in other directions and in order to allow primary produce to be sold at a reasonable price to the community and to allow it to compete on an overseas market. * * *
>
> The policy was not controlled by the railway employees, yet they were being asked at the present time to grant the whole relief that was considered necessary by the department as a result of the policy.

The decision of the court was in favor of the employers, and the award declared that as from June 16, 1930, employees in those sections of the public service and the railway service who were included in the application should work the 48-hour week.

New South Wales Establishes 48-Hour Week

IN MAY of this year the Legislature of New South Wales passed a bill known as the industrial arbitration (eight hours) amendment act, 1930, which, according to the Australian Worker of June 25, was signed on June 16 by the governor in council, and became effective at once. The act contains a number of provisions other than those immediately affecting hours. The Employers' Review (Sydney, New South Wales), in its May, 1930, issue, gives this summary of its more important features:

The act provides for the following:

1. The repeal of the 44-hour week act of 1925 and the reinstitution of a general working week of 48 hours without any increase in the rate of pay.
2. That the longer working week shall be deemed to be incorporated and to become part of all existing State awards and agreements.
3. That available work may be rationed and spread among the largest possible number of employees without any obligation on the part of an employer to observe the weekly hiring provisions of existing State awards.
4. That piecework, contract work, or any other system of payment by results shall be allowed in any industry, and that trade-union rules forbidding such work shall be void and of no effect.
5. That the industrial commission and conciliation committees shall, before making an award, take into consideration the economic consequences of such award.

Cotton-Mill Wages and Hours in the Bombay Presidency

IN 1926 the Bombay Labor Office undertook its third inquiry into wages and hours of work in cotton mills, and its findings have recently been published.[1] The study covered three cities—Bombay, Ahmedabad, and Sholapur—and data were gathered from 37 mills, employing approximately one-third of the total number of workers in the industry in these cities. The numbers covered, by sex and age groups, were as follows:

TABLE 1.—NUMBER OF EMPLOYEES COVERED IN EACH CITY, BY SEX AND AGE GROUPS

Age and sex groups	Bombay	Ahmedabad	Sholapur	Total
Men	38,349	12,719	3,761	54,829
Women	12,072	3,016	810	15,898
Children		657	192	849
Total	50,421	16,392	4,763	71,576

The proportion which the number of employees studied bore to the total was for Bombay 34.6 per cent, for Ahmedabad 30 per cent, and for Sholapur 26.3 per cent.

Methods of Calculating Wage Rates

THE whole matter of wage rates was confused and confusing. In Bombay and Sholapur the wage period was a month, but in Ahmedabad it was the "hapta," a period varying from 14 to 16 days. The

[1] Bombay (India). Labor Office. Report on an inquiry into wages and hours of labor in the cotton-mill industry, 1926. Bombay, 1930. 172 pp.

"haptas" of different mills did not coincide, and even in the same mill the "haptas" of different classes of workers might begin and end on different days. All three cities used a basic wage, which was usually related to the wage paid before the war, though in some cases it was any year between 1913 and 1918 when the first cost-of-living allowance was granted. A "dearness allowance" is also universal; in Bombay this amounts to 80 per cent of the basic wage for male piece workers, and to 70 per cent for male time workers and all female operatives. In the Sholapur mills there is a grain compensation allowance, by virtue of which a worker who puts in a certain number of days' work a month is entitled to buy a given quantity of grain at a price which saves him about 30 to 40 per cent on the purchase. In both the Ahmedabad and the Sholapur mills a bonus for good attendance is given to certain groups of time workers. In Ahmedabad there is a deduction from the earnings of 15.625 per cent, based on the general reduction effected in 1923. Other bonuses and deductions are found in various mills, so that computing a worker's wage rate or earnings is a complicated matter.

There was a good deal of variation, also, as to the use of time and piece rates, and as to the period on which time rates were based. Weavers were universally paid piece rates, and so, ordinarily, were warpers and operatives in the winding department. Wages in the mixing and waste rooms were at time rates in all the cities studied, but in other departments there was considerable variation. Piece workers formed 47.4 per cent of all workers studied in Bombay, 42.3 per cent in Ahmedabad, and 51.3 per cent in Sholapur.

Average Earnings

IN TABLE 2 are shown the average daily earnings of all operatives by cities and by age and sex groups:

TABLE 2.—AVERAGE DAILY EARNINGS OF COTTON-MILL OPERATIVES IN THREE CITIES

[Conversions made on basis of rupee=32.4 cents, anna=2 cents, and pai=⅓ cent]

City	Men		Women		Children		All adults	
	Indian currency	United States currency	Indian currency	United States currency	Indian currency	United States currency	Indian currency	United States currency
	Rs. a. p.	*Cents*	*Rs. a. p.*	*Cents*	*Rs. a. p.*	*Cents*	*Rs. a. p.*	*Cents*
Bombay	1 8 0	48.4	0 11 11	23.8			1 5 3	42.9
Ahmedabad	1 6 8	45.7	0 12 6	25.0	0 5 6	11.0	1 4 8	41.7
Sholapur	1 0 5	33.2	0 6 8	13.3	0 4 0	8.0	0 14 8	29.3

These averages, of course, covered a wide range of individual earnings according to occupation and mill. Thus in Bombay the average daily earnings of 2-loom weavers, who were without exception male pieceworkers, ranged from 1 Rs. 9a. 1p. (50.6 cents) to 2 Rs. 1a. 6p. (67.8 cents) per day, according to the mill in which they worked, with similar variations for other trades. Those who tended four looms earned on an average 2 Rs. 14a. 2p. (93.1 cents) in Bom-

bay, 3 Rs. 6a. 4p. ($1.10) in Ahmedabad, and 3 Rs. 6a. 9p. ($1.11) in Sholapur.

Regularity of attendance, as well as rates of wages, affected the average earnings. Table 3 shows the average monthly earnings of those who worked without any absences throughout a full wage period, the period used being for Bombay and Ahmedabad 27 and for Sholapur 26.7 days.

TABLE 3.—AVERAGE MONTHLY EARNINGS OF FULL-TIME WORKERS, BY CITY

[Conversions made on basis of rupee=32.4 cents, anna=2 cents, and pai=½ cent]

City	Men		Women		Children		All adults	
	Indian currency	United States currency	Indian currency	United States currency	Indian currency	United States currency	Indian currency	United States currency
	Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	
Bombay	44 3 6	$14.33	20 4 6	$6.61			40 4 6	$13.05
Ahmedabad	38 4 0	12.39	21 1 6	6.83	9 4 6	$3.01	34 14 0	11.30
Sholapur	26 10 2	8.63	11 6 7	3.70	6 13 10	2.22	24 6 1	7.90

Hours and Attendance

THE maximum legal day for men and women in the Indian factories is 11 hours and for children 6. In all the mills studied the maximum hours were generally 10 for adults and 5 for children, who, in Ahmedabad and Sholapur, were employed in two shifts. In some cases the engine and boiler departments had an 11-hour day, but, on the the other hand, a number of mills had hours ranging from 8 to 9½ in various departments.

In all the mills there was a normal break of one hour in the middle of the day, usually from 12 to 1 p. m. The factory act provides that anyone working overtime—i. e., more than 60 hours in a week—must be paid at least time and a quarter for the extra hours, and this provision was very generally observed.

Absenteeism was common, but varied considerably in the different centers. The workers who had no record of absenteeism during a full working period formed 47.8 per cent of the total operative force in Bombay, 56.7 per cent in Ahmedabad, and 30.5 per cent in Sholapur. In Bombay the figures are affected by a custom of having more woman winders and reelers than are actually required and employing them in rotation. As no distinction was made between voluntary absence and absence due to this system, the Bombay figures are somewhat exaggerated. If these winders and reelers are omitted, the percentage of full-time workers in Bombay rises to 51.7 per cent.

Another method of measuring absenteeism is that of calculating the percentage which the days not worked form of the possible working time during the period under consideration. Table 4 shows the amount of absenteeism as determined by this method.

TABLE 4.—PERCENTAGE DAYS LOST THROUGH ABSENCE FORM OF POSSIBLE WORKING-DAYS, BY LOCALITY AND AGE AND SEX GROUPS

Age and sex group	Bombay		Ahmedabad		Sholapur	
	Number of workers	Per cent of time lost	Number of workers	Per cent of time lost	Number of workers	Per cent of time lost
Men	38,349	7.1	12,719	8.0	3,761	12.5
Women	12,072	11.9	3,016	7.4	810	10.8
Children			657	3.6	192	15.6
All adults	50,421	8.3	15,735	7.9	4,571	12.2
All operatives	50,421	8.3	16,392	7.7	4,763	12.3

Figures for women and for adult operatives in the Bombay mills are affected by the same factors previously mentioned in connection with winders and reelers. If the 6,677 winders and reelers are excluded, the percentage of absenteeism for the remaining 5,395 woman workers is 6.1 as against 11.9 for all female operatives. Also, if woman winders and reelers are excluded from the figures for "all adult operatives," the final absenteeism figure for the selected mills in Bombay is 7 per cent as against 8.3 per cent.

TREND OF EMPLOYMENT

Summary for July, 1930

EMPLOYMENT decreased 2.6 per cent in July, 1930, as compared with June, and pay-roll totals decreased 7.1 per cent, according to reports made to the Bureau of Labor Statistics.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the total pay rolls for one week, for both June and July, together with the per cent of change in July, are shown in the following summary:

SUMMARY OF EMPLOYMENT AND PAY-ROLL TOTALS, JUNE AND JULY, 1930

Industrial group	Establishments	Employment		Per cent of change	Pay roll in 1 week		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
1. Manufacturing	**13,613**	**3,252,673**	**3,168,843**	[1]−4.6	**$85,490,650**	**$77,057,094**	[1]−9.8
2. Coal mining	**1,432**	**291,094**	**291,172**	+(2)	**7,323,680**	**6,609,218**	−9.8
Anthracite	153	93,674	94,521	+0.9	3,030,505	2,699,424	−10.9
Bituminous	1,279	197,420	196,651	−0.4	4,293,175	3,909,794	−8.9
3. Metalliferous mining	**346**	**53,495**	**50,879**	**−4.9**	**1,557,009**	**1,371,132**	**−11.9**
4. Quarrying and nonmetallic mining	**746**	**37,550**	**37,384**	**−0.4**	**1,006,007**	**941,102**	**−5.9**
5. Crude petroleum production	**521**	**25,871**	**25,794**	**−0.3**	**895,780**	**910,312**	**+1.6**
6. Public utilities	**11,991**	**758,276**	**762,848**	**+0.6**	**22,995,736**	**23,144,598**	**+0.6**
Telephone and telegraph	7,675	351,904	352,765	+0.2	9,922,710	10,226,819	+3.1
Power, light and water	2,951	249,250	252,227	+1.2	8,012,653	7,930,227	−1.0
Electric railroad operation and maintenance, exclusive of car shops	465	157,122	157,856	+0.5	5,060,373	4,987,552	−1.4
7. Trade	**8,825**	**307,412**	**294,584**	**−4.2**	**7,994,331**	**7,624,331**	**−4.6**
Wholesale	2,074	65,066	64,755	−0.5	2,078,946	2,024,982	−2.6
Retail	6,751	242,346	229,829	−5.2	5,915,385	5,599,349	−5.3
8. Hotels	**2,153**	**162,155**	**167,635**	**+3.4**	[3]**2,776,563**	[3]**2,832,743**	**+1.7**
9. Canning and preserving	**819**	**44,235**	**67,319**	**+52.2**	**797,242**	**1,102,438**	**+38.3**
Total	**39,546**	**4,932,761**	**4,866,458**	**−2.6**	**130,831,067**	**121,582,968**	**−7.1**

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION							
New England [4]	3,006	459,961	447,393	−2.7	$11,209,560	$10,816,583	−3.5
Middle Atlantic [5]	7,151	1,449,059	1,424,522	−1.7	40,836,391	38,644,724	−5.4
East North Central [6]	9,051	1,442,672	1,384,793	−4.0	41,207,128	36,651,976	−11.1
West North Central [7]	4,406	316,748	312,840	−1.2	8,123,736	7,798,857	−4.0
South Atlantic [8]	4,429	484,538	471,370	−2.7	10,089,878	9,418,766	−6.7
East South Central [9]	2,210	202,208	194,327	−3.9	3,926,586	3,590,328	−8.6
West South Central [10]	3,162	198,541	192,543	−3.0	4,942,890	4,754,875	−3.8
Mountain [11]	1,539	95,258	98,235	+3.1	2,648,904	2,568,533	−3.0
Pacific [12]	4,592	283,776	280,435	−1.2	7,845,934	7,338,326	−6.5
All divisions	**39,546**	**4,932,761**	**4,866,458**	**−2.6**	**130,831,067**	**121,582,968**	**−7.1**

[1] Weighted per cent of change for the combined 54 manufacturing industries repeated from Table 2, p. 175; the remaining per cents of change, including total, are unweighted.
[2] Less than one-tenth of 1 per cent.
[3] Cash payments only, see text, p. 189.
[4] Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.
[5] New Jersey, New York, Pennsylvania.
[6] Illinois, Indiana, Michigan, Ohio, Wisconsin.
[7] Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.
[8] Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia.
[9] Alabama, Kentucky, Mississippi, Tennessee.
[10] Arkansas, Louisiana, Oklahoma, Texas.
[11] Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming.
[12] California, Oregon, Washington.

The combined total of these 13 industrial groups shows a decrease of 2.6 per cent in employment from June to July and a decrease of 7.1 per cent in employees' earnings. Excluding manufacturing, the total of the remaining 12 industrial groups shows a *gain* in employment of 1 per cent, with a decrease of 1.8 per cent in pay-roll totals. Manufacturing industries alone, which have shown a considerable decrease in employment in July in each of the seven years preceding 1930, reported a decrease of 4.6 per cent in employment accompanied by a decrease of 9.8 per cent in pay-roll totals. A large number of the leading manufacturing industries customarily take advantage of, and prolong, the Fourth of July closing to make repairs and take inventories. This arrangement and the beginning of the regular vacation season together result in noticeably decreased employment in July and in even more pronounced decreases in pay-roll totals.

Increased employment in July was shown in 6 of the 13 industrial groups: Canning and preserving showed a seasonal increase of more than 52 per cent and summer-resort hotels increased hotel employment 3.4 per cent; increases of from 0.2 per cent to 1.2 per cent in employment were shown in the operation of telephone and telegraph, electric-railroad, and power, light, and water companies, and in anthracite mining.

The remaining seven industrial groups reported fewer employees in July than in June. Metalliferous mining fell off 4.9 per cent; manufacturing industries, 4.6 per cent; bituminous mining and quarrying, 0.4 per cent each; crude petroleum production, 0.3 per cent; wholesale trade, 0.5 per cent; and retail trade, 5.2 per cent. The figures of the several groups are not weighted according to the relative importance of each group, and therefore they represent only the employees in the establishments reporting. (Compare note 1, manufacturing industries, summary table, p. 170.)

For convenient reference the latest data available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are shown in the following statement. These reports are for the months of May and June instead of for June and July, consequently the figures can not be combined with those presented in the foregoing table.

EMPLOYMENT AND PAY-ROLL TOTALS, CLASS I RAILROADS

Industry	Employment		Per cent of change	Amount of pay roll in entire month		Per cent of change
	May 15, 1930	June 15, 1930		May, 1930	June, 1930	
Class I railroads	1,584,643	1,547,557	−2.3	$221,588,551	$210,060,545	−5.2

The total number of employees included in this summary is approximately 6,400,000 whose combined earnings in one week amounted to about $171,600,000.

1. Employment in Selected Manufacturing Industries in July, 1930

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, June and July, 1930

EMPLOYMENT in manufacturing industries decreased 4.6 per cent in July as compared with June, and pay-roll totals decreased 9.8 per cent. These changes are based upon returns made by 13,147 establishments in 54 of the principal manufacturing industries of the United States. These establishments in July had 3,011,509 employees whose combined earnings in one week were $74,648,141.

The bureau's weighted index of employment for July, 1930, is 81.6 as compared with 85.5 for June, 1930; 87.7 for May, 1930; and 98.2 for July, 1929; the index for pay-roll totals for July, 1930, is 75.9 as compared with 84.1 for June, 1930; 87.6 for May, 1930; and 98.2 for July, 1929. The monthly average for 1926 equals 100.

The leather group alone of the 12 groups of industries showed increased employment and pay-roll totals in July, this increase being due to the seasonal increase in the boot and shoe industry. Among the remaining 11 groups the smallest decrease, 0.6 per cent, was shown in both the food and chemical groups, and the outstanding decrease, 7.3 per cent, was shown in the textile group.

Six of the 54 separate industries reported increased employment in July—cane sugar refining, 6.7 per cent; fertilizer, 4.5 per cent; ice cream, 3.7 per cent; boots and shoes, 3.2 per cent; flour, 2.3 per cent; and book and job printing, 1.1 per cent.

The outstanding decreases in employment from June to July were from 10.1 per cent to 13.9 per cent and occurred in the stove, glass, millinery and lace, carpet, agricultural implement, and women's clothing industries. The iron and steel industry reported 4.4 per cent fewer employees and a drop of 14.5 per cent in employees' earnings; foundries and machine shops reported decreases of 4.5 per cent and 11.4 per cent in the two items, respectively; and automobiles reported decreases of 8.8 per cent and 11 per cent in the two items. Rayon, radio, aircraft, jewelry, paint and varnish, and miscellaneous rubber goods, data for which are not yet included in the bureau's indexes, showed decreased employment in July with the exception of radio, which reported an increase of 25.7 per cent in employment.

Each of the nine geographic divisions showed decreased employment in July as compared with June. The smallest decreases—from 3.1 per cent to 3.6 per cent—having been in the Middle Atlantic, West North Central, South Atlantic, and Mountain divisions; the greatest decrease, 5.8 per cent, was reported by the East North Central division.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN JUNE AND JULY, 1930, BY INDUSTRIES

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
Food and kindred products	**1,950**	**234,181**	**232,519**	(1)	**$6,224,872**	**$6,098,896**	(1)
Slaughtering and meat packing	206	90,476	88,833	−1.8	2,419,713	2,380,479	−1.6
Confectionery	338	33,666	32,577	−3.2	662,536	590,683	−10.8
Ice cream	327	14,475	15,010	+3.7	481,068	491,411	+2.2
Flour	356	15,097	15,439	+2.3	415,194	409,330	−1.4
Baking	707	69,527	68,991	−0.8	1,909,621	1,876,042	−1.8
Sugar refining, cane	16	10,940	11,669	+6.7	336,740	350,951	+4.2
Textiles and their products	**2,439**	**565,086**	**524,946**	(1)	**10,242,524**	**9,166,712**	(1)
Cotton goods	465	178,989	167,165	−6.6	2,587,448	2,283,296	−11.8
Hosiery and knit goods	351	92,166	83,857	−9.0	1,626,974	1,353,417	−16.8
Silk goods	287	59,450	54,153	−8.9	1,134,049	960,805	−15.3
Woolen and worsted goods	187	55,700	53,946	−3.1	1,201,402	1,132,679	−5.7
Carpets and rugs	30	19,008	16,584	−12.8	361,865	323,616	−10.6
Dyeing and finishing textiles	118	33,233	30,978	−6.8	751,658	684,105	−9.0
Clothing, men's	349	63,912	62,430	−2.3	1,295,811	1,312,077	+1.3
Shirts and collars	116	19,098	18,184	−4.8	266,120	256,233	−3.7
Clothing, women's	412	29,678	25,555	−13.9	725,734	630,187	−13.2
Millinery and lace goods	124	13,852	12,094	−12.7	291,463	230,297	−21.0
Iron and steel and their products	**1,972**	**662,559**	**632,323**	(1)	**19,134,068**	**16,716,726**	(1)
Iron and steel	202	260,696	249,226	−4.4	7,920,441	6,771,864	−14.5
Cast-iron pipe	39	11,342	10,940	−3.5	264,461	246,170	−6.9
Structural ironwork	176	30,164	30,050	−0.4	895,519	826,236	−7.7
Foundry and machine-shop products	1,083	251,455	240,180	−4.5	7,209,368	6,384,309	−11.4
Hardware	72	27,732	26,506	−4.4	605,338	543,036	−10.3
Machine tools	150	32,806	30,112	−8.2	948,299	811,497	−14.4
Steam fittings and steam and hot-water heating apparatus	112	28,217	27,166	−3.7	747,343	701,525	−6.1
Stoves	138	20,177	18,143	−10.1	543,299	432,089	−20.5
Lumber and its products	**1,328**	**200,125**	**190,191**	(1)	**4,337,227**	**3,854,594**	(1)
Lumber, sawmills	632	119,120	113,053	−5.1	2,513,916	2,228,556	−11.4
Lumber, millwork	332	29,354	28,061	−4.4	704,925	626,273	−11.2
Furniture	414	51,651	49,077	−5.0	1,118,386	999,765	−10.6
Leather and its products	**461**	**138,224**	**133,384**	(1)	**2,593,540**	**2,765,216**	(1)
Leather	139	26,145	25,969	−0.7	644,972	631,920	−2.0
Boots and shoes	322	104,079	107,415	+3.2	1,948,568	2,133,296	+9.5
Paper and printing	**1,270**	**214,943**	**212,585**	(1)	**7,219,296**	**6,916,233**	(1)
Paper and pulp	217	60,927	58,437	−4.1	1,625,684	1,451,166	−10.7
Paper boxes	191	18,440	18,307	−0.7	419,700	412,265	−1.8
Printing, book and job	438	55,746	56,340	+1.1	1,934,810	1,903,554	−1.6
Printing, newspapers	424	79,830	79,501	−0.4	3,239,102	3,149,248	−2.8
Chemicals and allied products	**408**	**100,624**	**100,175**	(1)	**3,051,279**	**2,944,203**	(1)
Chemicals	157	36,922	36,305	−1.7	1,008,806	952,779	−5.6
Fertilizers	176	7,810	8,161	+4.5	165,829	166,709	+0.5
Petroleum refining	75	55,892	55,709	−0.3	1,876,644	1,824,715	−2.8
Stone, clay, and glass products	**1,022**	**122,824**	**114,374**	(1)	**3,121,228**	**2,686,290**	(1)
Cement	107	25,153	24,229	−3.7	769,348	681,834	−11.4
Brick, tile, and terra cotta	649	36,481	35,446	−2.8	858,928	770,079	−10.3
Pottery	120	17,501	16,076	−8.1	381,973	332,056	−13.1
Glass	146	43,689	38,623	−11.6	1,110,979	902,321	−18.8
Metal products, other than iron and steel	**241**	**49,338**	**47,908**	(1)	**1,239,926**	**1,083,304**	(1)
Stamped and enameled ware	80	18,187	17,698	−2.7	418,429	357,409	−14.6
Brass, bronze, and copper products	161	31,151	30,210	−3.0	821,497	725,895	−11.6
Tobacco products	**227**	**59,972**	**59,352**	(1)	**990,513**	**961,938**	(1)
Chewing and smoking tobacco and snuff	26	8,753	8,619	−1.5	146,049	139,959	−4.2
Cigars and cigarettes	201	51,219	50,733	−0.9	844,464	821,979	−2.7

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN JUNE AND JULY, 1930, BY INDUSTRIES—Continued

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
Vehicles for land transportation	**1,275**	**495,722**	**458,399**	(1)	**$15,291,451**	**$12,783,583**	(1)
Automobiles	209	341,118	311,010	−8.8	10,588,704	8,592,727	−11.0
Carriages and wagons	49	1,234	1,179	−4.5	28,836	27,430	−4.9
Car building and repairing, electric-railroad	447	28,927	28,551	−1.3	924,794	874,631	−5.4
Car building and repairing, steam-railroad	570	124,443	117,659	−5.5	3,749,117	3,288,795	−12.3
Miscellaneous industries	**970**	**417,075**	**402,687**	(1)	**12,044,726**	**11,079,399**	(1)
Agricultural implements	85	24,415	21,181	−13.2	619,232	485,205	−21.6
Electrical machinery, apparatus and supplies	214	187,354	179,386	−4.3	5,834,396	5,237,238	−10.2
Pianos and organs	67	5,893	5,530	−6.2	158,097	143,296	−9.4
Rubber boots and shoes	9	13,733	13,365	−2.7	316,364	293,886	−7.1
Automobile tires	42	49,500	46,094	−6.9	1,465,540	1,336,367	−8.8
Shipbuilding	87	41,422	39,797	−3.9	1,234,037	1,174,454	−4.8
Rayon [2]	17	23,416	23,202	−0.9	474,277	490,177	+3.4
Radio [2]	40	20,034	25,174	+25.7	540,020	651,973	+20.7
Aircraft [2]	43	8,932	8,396	−6.0	290,857	262,605	−9.7
Jewelry [2]	118	13,081	12,641	−3.4	335,629	311,109	−7.3
Paint and varnish [2]	172	13,833	12,955	−6.3	391,121	343,580	−12.2
Rubber goods, other than rubber boots, shoes, tires, and tubes [2]	76	15,462	14,966	−3.2	385,156	349,509	−9.3
All industries	**13,613**	**3,252,673**	**3,108,843**	(1)	**$85,490,650**	**77,057,094**	(1)

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION [3]							
New England	1,550	359,960	342,229	−4.9	$8,310,389	$7,783,968	−6.3
Middle Atlantic	3,576	946,554	916,488	−3.2	26,442,943	24,608,288	−6.9
East North Central	3,286	1,073,739	1,011,608	−5.8	30,942,092	26,544,944	−14.2
West North Central	1,193	175,789	170,266	−3.1	4,472,569	4,164,859	−6.9
South Atlantic	1,611	330,350	318,387	−3.6	6,403,313	5,906,990	−7.8
East South Central	619	112,953	107,261	−5.0	2,138,289	1,899,234	−11.2
West South Central	725	98,036	93,903	−4.2	2,367,875	2,212,882	−6.5
Mountain	241	31,347	30,333	−3.2	869,231	824,763	−5.1
Pacific	812	123,945	118,368	−4.5	3,543,949	3,111,166	−12.2
All divisions	**13,613**	**3,252,673**	**3,108,843**	(1)	**$85,490,650**	**77,057,094**	(1)

[1] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

[2] The rayon industry was surveyed for the first time for the January–February, 1929, comparison, the radio industry for the March–April, 1929, comparison, the aircraft, jewelry, and paint and varnish industries for the February–March, 1930, comparison, and the rubber goods industry for the March–April, 1930 comparison, and, since the data for computing relative numbers are not yet available, these industries are not included in the bureau's indexes of employment and pay-roll totals. The total figures for all manufacturing industries given in the text, p. 172, do not include rayon, radio, aircraft, jewelry, paint and varnish, or rubber goods.

[3] See footnotes 4 to 12, p. 170.

TABLE 2.—PER CENT OF CHANGE, JUNE TO JULY, 1930—12 GROUPS OF MANUFACTURING INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid in the industries]

Group	Per cent of change, June to July, 1930		Group	Per cent of change, June to July, 1930	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	−0.6	−2.0	Stone, clay, and glass products	−6.5	−13.7
Textiles and their products	−7.3	−10.4	Metal products, other than iron and steel	−3.0	−12.5
Iron and steel and their products	−4.5	−12.6	Tobacco products	−1.1	−2.9
Lumber and its products	−4.9	−11.3	Vehicles for land transportation	−6.9	−15.4
Leather and its products	+2.5	+6.4	Miscellaneous industries	−5.2	−9.6
Paper and printing	−1.0	−4.1			
Chemicals and allied products	−0.6	−3.9	**All industries**	**−4.6**	**−9.8**

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, July, 1930, and July, 1929

THE LEVEL of employment in manufacturing industries in July, 1930, was 16.9 per cent lower than in July, 1929, and pay-roll totals were 22.7 per cent lower.

Four industries only—cane-sugar refining, newspaper printing, chewing and smoking tobacco, and shipbuilding—had more employees at the end of the 12-month period than at the beginning.

The outstanding decreases in July, 1930, as compared with July, 1929, were in the following industries: Agricultural implements (35 per cent), carpets, automobiles, pianos, carriages, machine tools, automobile tires, millwork, furniture, rubber boots and shoes, sawmills, brick, electrical machinery, and brass goods (21.7 per cent).

Each of the nine geographic divisions showed considerably fewer employees in July, 1930, than in July, 1929. The greatest decline (22.5 per cent) being in the East North Central division, and the smallest decline (10.3 per cent) in the South Atlantic division.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JULY, 1930, WITH JULY, 1929

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change July, 1930, compared with July, 1929		Industry	Per cent of change July, 1930, compared with July, 1929	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	**−4.8**	**−5.1**	**Textiles and their products—Continued.**		
Slaughtering and meat packing	−4.1	−4.3	Carpets and rugs	−33.0	−45.6
Confectionery	−5.7	−8.0	Dyeing and finishing textiles	−15.3	−24.2
Ice cream	−6.9	−8.6	Clothing, men's	−14.9	−22.3
Flour	−5.1	−5.1	Shirts and collars	−14.5	−26.2
Baking	−5.4	−5.2	Clothing, women's	−16.9	−19.5
Sugar refining, cane	+3.5	+5.9	Millinery and lace goods	−16.5	−27.3
Textiles and their products	**−17.7**	**−26.1**			
Cotton goods	−18.8	−28.7	**Iron and steel and their products**	**−16.9**	**−27.0**
Hosiery and knit goods	−16.2	−27.0	Iron and steel	−13.1	−23.8
Silk goods	−19.6	−31.5	Cast-iron pipe	−12.6	−17.4
Woolen and worsted goods	−17.6	−21.8			

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JULY, 1930, WITH JULY, 1929—Continued

Industry	Per cent of change July, 1930, compared with July, 1929	
	Number on pay roll	Amount of pay roll
Iron and steel and their products—Continued.		
Structural ironwork	−8.3	−15.1
Foundry and machine-shop products	−19.6	−29.4
Hardware	−16.9	−31.6
Machine tools	−28.2	−40.2
Steam fittings and steam and hot-water heating apparatus	−17.0	−25.1
Stoves	−18.7	−30.4
Lumber and its products	**−24.6**	**−31.2**
Lumber, sawmills	−23.9	−29.4
Lumber, millwork	−27.1	−30.6
Furniture	−25.0	−35.2
Leather and its products	**−8.4**	**−19.5**
Leather	−9.2	−12.2
Boots and shoes	−8.3	−21.6
Paper and printing	**−3.0**	**−3.6**
Paper and pulp	−5.8	−12.2
Paper boxes	−7.2	−9.6
Printing, book and job	−2.4	(1)
Printing, newspapers	+0.8	(1)
Chemicals and allied products	**−6.8**	**−8.6**
Chemicals	−8.8	−13.3
Fertilizers	−2.7	−7.4
Petroleum refining	−5.3	−4.1
Stone, clay, and glass products	**−17.4**	**−22.8**
Cement	−6.6	−9.2
Brick, tile, and terra cotta	−23.9	−30.6
Pottery	−12.4	−19.8
Glass	−15.9	−21.3
Metal products, other than iron and steel	**−19.5**	**−31.2**
Stamped and enameled ware	−14.5	−27.0
Brass, bronze, and copper products	−21.7	−32.6
Tobacco products	**−2.5**	**−6.7**
Chewing and smoking tobacco and snuff	+4.3	−1.2
Cigars and cigarettes	−3.2	−7.4
Vehicles for land transportation	**−24.3**	**−28.6**
Automobiles	−31.2	−34.3
Carriages and wagons	−29.9	−25.1
Car building and repairing, electric-railroad	−6.8	−7.8
Car building and repairing, steam-railroad	−17.0	−23.0
Miscellaneous industries	**−21.8**	**−34.0**
Agricultural implements	−35.0	−47.7
Electrical machinery, apparatus, and supplies	−22.4	−24.0
Pianos and organs	−30.7	−37.5
Rubber boots and shoes	−25.0	−34.6
Automobile tires	−28.4	−28.7
Shipbuilding	+4.8	+3.2
All industries	**−16.9**	**−22.7**

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION [2]		
New England	−17.7	−25.1
Middle Atlantic	−14.8	−19.9
East North Central	−22.5	−28.4
West North Central	−12.4	−17.1
South Atlantic	−10.3	−14.6
East South Central	−18.5	−24.4
West South Central	−16.5	−15.9
Mountain	−14.1	−16.1
Pacific	−19.0	−22.9
All industries	**−16.9**	**−22.7**

[1] No change.
[2] See footnotes 4 to 12, p. 170.

Per Capita Earnings in Manufacturing Industries

PER CAPITA earnings in manufacturing industries in July, 1930, were 5.5 per cent lower than in June, 1930, and 7 per cent lower than in July, 1929.

The changes in per capita earnings in July, 1930, as compared with June, 1930, and as compared with July, 1929, are shown in Table 4.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS IN MANUFACTURING INDUSTRIES, JULY, 1930, WITH JUNE, 1930, AND JULY, 1929

Industry	Per cent of change, July, 1930, compared with—		Industry	Per cent of change, July, 1930, compared with—	
	June, 1930	July, 1929		June, 1930	July, 1929
Boots and shoes	+6.1	−14.6	Pottery	−5.4	−8.4
Clothing, men's	+3.7	−8.7	Cotton goods	−5.5	−12.0
Carpets and rugs	+2.5	−18.7	Furniture	−5.9	−13.6
Shirts and collars	+1.1	−13.4	Hardware	−6.1	−17.7
Clothing, women's	+0.9	−3.2	Electric machinery, apparatus, and supplies	−6.2	−1.8
Slaughtering and meat packing	+0.2	(1)	Lumber, sawmills	−6.6	−7.0
Carriages and wagons	−0.4	+6.9	Machine tools	−6.8	−16.7
Shipbuilding	−0.9	−1.4	Paper and pulp	−6.9	−7.1
Baking	−1.0	+0.3	Lumber, millwork	−7.0	−4.8
Paper boxes	−1.1	−2.2	Silk goods	−7.0	−14.8
Leather	−1.4	−3.6	Car building and repairing, steam-railroad	−7.2	−6.9
Ice cream	−1.5	−1.9	Foundry and machine-shop products	−7.3	−12.3
Cigars and cigarettes	−1.8	−4.6	Structural ironwork	−7.4	−7.7
Automobile tires	−2.1	−0.6	Brick, tile, and terra cotta	−7.7	−8.9
Sugar refining, cane	−2.3	+2.2	Confectionery	−7.9	−2.6
Dyeing and finishing textiles	−2.4	−10.5	Cement	−8.0	−2.9
Printing, newspapers	−2.4	−0.6	Glass	−8.1	−6.3
Petroleum refining	−2.5	+1.3	Hosiery and knit goods	−8.6	−12.8
Steam fittings and steam and hot-water heating apparatus	−2.5	−9.7	Brass, bronze, and copper products	−8.9	−14.1
Woolen and worsted goods	−2.6	−5.0	Millinery and lace goods	−9.5	−12.9
Chewing and smoking tobacco and snuff	−2.7	−4.9	Agricultural implements	−9.7	−19.7
Printing, book and job	−2.7	+2.3	Iron and steel	−10.6	−12.3
Pianos and organs	−3.4	−10.0	Automobiles	−11.0	−4.5
Cast-iron pipe	−3.5	−5.4	Stoves	−11.5	−14.1
Flour	−3.6	−0.1	Stamped and enameled ware	−12.3	−14.5
Fertilizers	−3.8	−4.8			
Chemicals	−4.0	−5.1	**All industries**	−5.5	−7.0
Car building and repairing, electric-railroad	−4.2	−0.8			
Rubber boots and shoes	−4.6	−13.0			

[1] No change.

Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

TABLE 5 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to July, 1930, together with average indexes for each of the years 1923 to 1929, inclusive.

TABLE 5.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO JULY, 1930

[Monthly average, 1926=100]

Month	Employment								Pay-roll totals							
	1923	1924	1925	1926	1927	1928	1929	1930	1923	1924	1925	1926	1927	1928	1929	1930
January	106.6	103.8	97.9	100.4	97.3	91.6	95.2	90.2	95.8	98.6	93.9	98.0	94.9	89.6	94.5	87.6
February	108.4	105.1	99.7	101.5	99.0	93.0	97.4	90.3	99.4	103.8	99.3	102.2	100.6	93.9	101.8	90.7
March	110.8	104.9	100.4	102.0	99.5	93.7	98.6	89.8	104.7	103.3	100.8	103.4	102.0	95.2	103.9	90.8
April	110.8	102.8	100.2	101.0	98.6	93.3	99.1	89.1	105.7	101.1	98.3	101.5	100.8	93.8	104.6	89.8
May	110.8	98.8	98.9	99.8	97.6	93.0	99.2	87.7	109.4	96.5	98.5	99.8	99.8	94.1	104.8	87.6
June	110.9	95.6	98.0	99.3	97.0	93.1	98.8	85.5	109.3	90.8	95.7	99.7	97.4	94.2	102.8	84.1
July	109.2	92.3	97.2	97.7	95.0	92.2	98.2	81.6	104.3	84.3	93.5	95.2	93.0	91.2	98.2	75.9
August	108.5	92.5	97.8	98.7	95.1	93.6	98.6	.....	103.7	87.2	95.4	98.7	95.0	94.2	102.1	.....
September	108.6	94.3	98.9	100.3	95.8	95.0	99.3	.....	104.4	89.8	94.4	99.3	94.1	95.4	102.6	.....
October	108.1	95.6	100.4	100.7	95.3	95.9	98.3	.....	106.8	92.4	100.4	102.9	95.2	99.0	102.3	.....
November	107.4	95.5	100.7	99.5	93.5	95.4	94.8	.....	105.4	91.4	100.4	99.6	91.6	96.1	95.1	.....
December	105.4	97.3	100.8	98.9	92.6	95.5	91.9	.....	103.2	95.7	101.6	99.8	93.2	97.7	92.0	.....
Average	108.8	98.2	99.2	100.0	96.4	93.8	97.5	[1] 87.7	104.3	94.6	97.7	100.0	96.5	94.5	100.4	[1] 86.6

[1] Average for 7 months.

Index numbers showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 manufacturing industries surveyed by the Bureau of Labor Statistics and in each of the 12 groups of industries, and also general indexes for the combined 12 groups of industries, are shown in Table 6 for July, 1929, and for May, June, and July, 1930.

In computing the general indexes and the group indexes the index numbers of separate industries are weighted according to the importance of the industries.

Following Table 6 are two charts showing for the 54 separate industries combined the course of pay-roll totals as well as the course of employment for each month of the years 1926 to 1929, inclusive, and for January, February, March, April, May, June, and July, 1930.

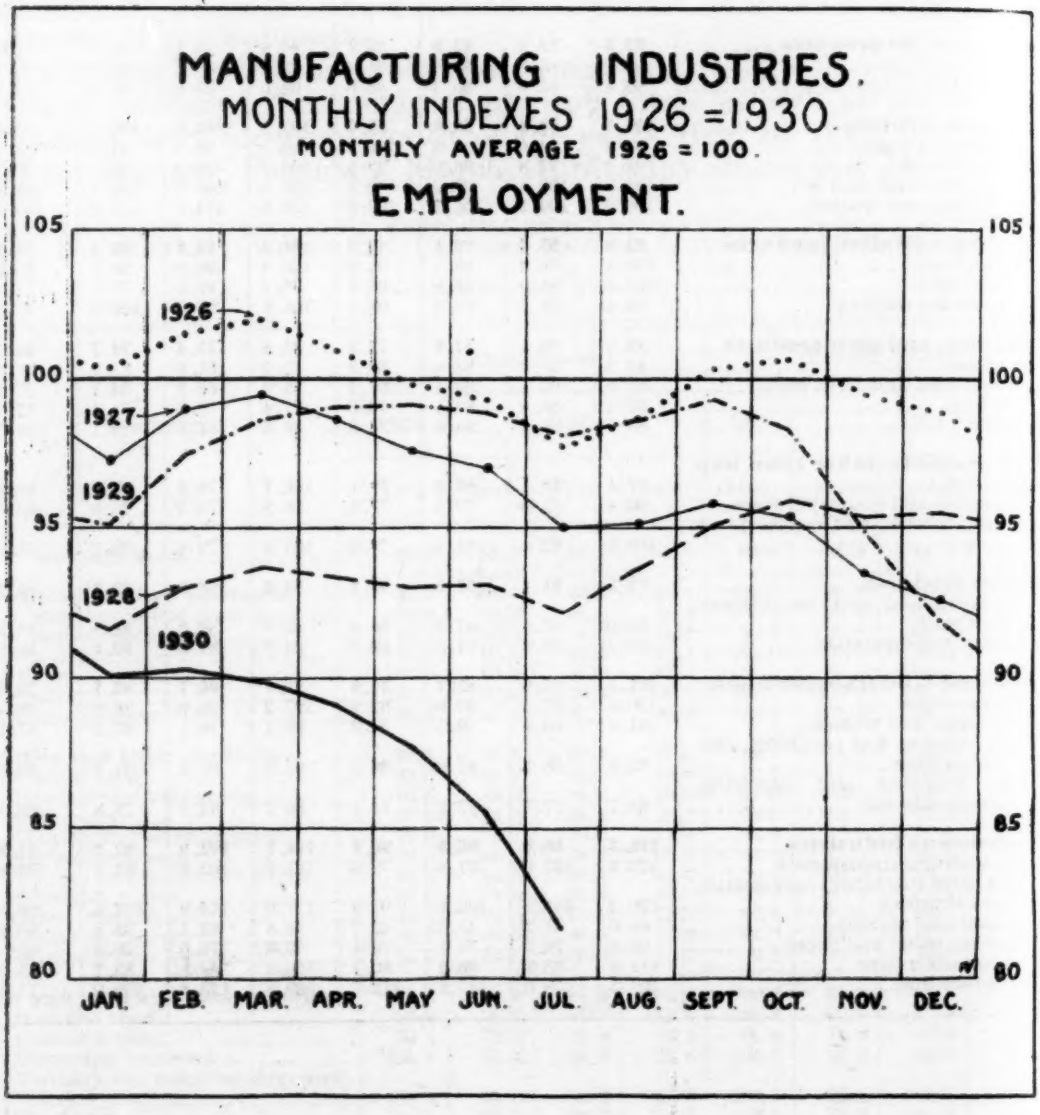
TABLE 6.—INDEX NUMBERS OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JULY, 1929, AND MAY, JUNE, AND JULY, 1930

[Monthly average, 1926=100]

Industry	Employment				Pay-roll totals			
	1929	1930			1929	1930		
	July	May	June	July	July	May	June	July
General index	**98.2**	**87.7**	**85.5**	**81.6**	**98.2**	**87.6**	**84.1**	**75.9**
Food and kindred products	**99.5**	**94.3**	**95.3**	**94.7**	**102.8**	**98.0**	**99.6**	**97.6**
Slaughtering and meat packing	100.9	95.8	98.6	96.8	105.2	99.9	102.4	100.7
Confectionery	81.2	80.4	79.2	76.6	80.1	80.8	82.6	73.7
Ice cream	110.4	97.6	99.2	102.8	112.0	99.3	100.2	102.4
Flour	103.0	95.0	95.5	97.7	104.9	98.2	100.9	99.5
Baking	103.7	97.8	98.9	98.1	105.3	100.4	101.6	99.8
Sugar refining, cane	96.4	97.4	93.5	99.8	97.8	102.8	99.4	103.6
Textiles and their products	**94.3**	**85.9**	**83.7**	**77.6**	**91.1**	**78.2**	**75.1**	**67.3**
Cotton goods	93.5	83.9	81.3	75.9	90.9	77.7	73.5	64.8
Hosiery and knit goods	96.5	89.9	88.9	80.9	97.0	84.6	85.1	70.8
Silk goods	97.8	89.3	86.2	78.6	98.8	83.7	79.9	67.7
Woolen and worsted goods	93.9	78.1	79.9	77.4	93.0	76.6	77.0	72.7
Carpets and rugs	102.5	86.7	78.8	68.7	93.0	67.1	56.6	50.6
Dyeing and finishing textiles	99.4	94.8	90.4	84.2	96.1	90.4	80.0	72.8
Clothing, men's	93.6	78.6	81.6	79.7	90.3	61.4	69.3	70.2
Shirts and collars	89.0	81.5	79.9	76.1	88.4	67.9	67.7	65.2
Clothing, women's	93.7	98.9	90.5	77.9	81.5	86.7	75.5	65.6
Millinery and lace goods	84.0	89.5	80.3	70.1	76.1	84.0	70.0	55.3
Iron and steel and their products	**101.1**	**90.6**	**88.9**	**84.6**	**101.9**	**89.5**	**85.2**	**74.5**
Iron and steel	96.6	90.7	87.7	83.9	97.6	92.0	87.0	74.4
Cast-iron pipe	80.4	72.5	72.8	70.3	81.8	75.2	72.6	67.6
Structural ironwork	104.3	95.4	96.0	95.6	104.3	96.3	95.9	88.5
Foundry and machine-shop products	108.4	94.0	91.3	87.2	109.7	92.1	87.5	77.5
Hardware	91.6	82.2	79.7	76.1	89.6	73.2	68.3	61.3
Machine tools	133.2	107.2	104.1	95.6	140.4	102.8	98.2	84.0
Steam fittings and steam and hot-water heating apparatus	72.8	67.7	62.7	60.4	70.8	61.7	56.4	53.0
Stoves	85.7	78.1	77.6	69.7	80.3	68.4	70.3	55.9
Lumber and its products	**90.3**	**73.2**	**71.6**	**68.1**	**90.3**	**72.2**	**70.0**	**62.1**
Lumber, sawmills	89.5	73.5	71.7	68.1	91.7	75.2	73.1	64.7
Lumber, millwork	87.2	68.3	66.5	63.6	85.7	69.2	67.0	59.5
Furniture	94.3	75.6	74.4	70.7	90.6	68.2	65.6	58.7

TABLE 6.—INDEX NUMBERS OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JULY, 1929, AND MAY, JUNE, AND JULY, 1930—Continued

Industry	Employment				Pay-roll totals			
	1929	1930			1929	1930		
	July	May	June	July	July	May	June	July
Leather and its products	**93.6**	**85.8**	**83.6**	**85.7**	**94.4**	**73.1**	**71.4**	**76.0**
Leather	93.0	86.8	85.0	84.4	93.6	85.5	83.9	82.2
Boots and shoes	93.8	85.6	83.3	86.0	94.6	69.6	67.8	74.2
Paper and printing	**100.6**	**99.6**	**98.6**	**97.6**	**103.1**	**104.9**	**103.6**	**99.4**
Paper and pulp	95.4	94.6	93.8	89.9	95.7	96.1	94.1	84.0
Paper boxes	94.2	87.8	88.0	87.4	100.0	90.9	92.1	90.4
Printing, book and job	102.8	100.8	99.2	100.3	102.6	105.6	104.3	102.6
Printing, newspapers	106.9	109.1	108.2	107.8	109.8	114.3	113.0	109.8
Chemicals and allied products	**95.8**	**93.0**	**89.8**	**89.3**	**100.4**	**97.0**	**95.5**	**91.8**
Chemicals	100.4	94.0	93.1	91.6	103.4	96.0	94.9	89.6
Fertilizers	67.4	84.9	62.8	65.6	76.7	88.6	70.7	71.0
Petroleum refining	99.4	94.5	94.4	94.1	101.6	99.3	100.3	97.4
Stone, clay, and glass products	**88.1**	**79.1**	**77.9**	**72.8**	**83.5**	**75.5**	**74.7**	**64.5**
Cement	86.0	81.4	83.4	80.3	85.0	81.9	87.1	77.2
Brick, tile, and terra cotta	88.6	69.5	69.4	67.4	82.9	63.9	64.1	57.5
Pottery	87.1	86.4	83.1	76.3	77.4	76.6	71.4	62.1
Glass	88.9	88.2	84.6	74.8	86.8	87.8	84.1	68.3
Metal products, other than iron and steel	**97.4**	**82.1**	**80.8**	**78.4**	**100.1**	**78.5**	**78.7**	**68.9**
Stamped and enameled ware	90.4	81.5	79.4	77.3	88.9	76.2	76.0	64.9
Brass, bronze, and copper products	100.8	82.4	81.4	78.9	104.6	79.4	79.7	70.5
Tobacco products	**92.5**	**91.4**	**91.2**	**90.2**	**92.9**	**86.9**	**89.3**	**86.7**
Chewing and smoking tobacco and snuff	83.0	87.4	87.9	86.6	85.8	86.0	88.5	84.8
Cigars and cigarettes	93.7	91.9	91.6	90.7	93.8	87.0	89.4	86.9
Vehicles for land transportation	**101.7**	**87.0**	**82.7**	**77.0**	**98.4**	**90.7**	**83.1**	**70.3**
Automobiles	120.5	97.5	90.9	82.9	107.2	98.9	86.8	70.4
Carriages and wagons	81.0	63.0	59.5	56.8	85.1	70.1	67.0	63.7
Car building and repairing, electric-railroad	92.8	88.5	87.6	86.5	93.6	91.3	91.3	86.3
Car building and repairing, steam-railroad	85.7	77.7	75.2	71.1	89.7	82.3	78.8	69.1
Miscellaneous industries	**116.3**	**96.6**	**95.9**	**90.9**	**115.7**	**102.8**	**97.2**	**87.9**
Agricultural implements	122.2	107.0	91.5	79.4	121.9	102.8	81.3	63.8
Electrical machinery, apparatus, and supplies	126.2	105.1	102.3	97.9	127.0	110.9	107.4	96.5
Pianos and organs	61.6	47.5	45.5	42.7	56.3	42.1	38.8	35.2
Rubber boots and shoes	96.5	78.1	74.5	72.4	99.8	75.9	70.3	65.3
Automobile tires	111.8	85.3	86.1	80.1	106.3	89.8	83.1	75.8
Shipbuilding	107.5	118.0	117.3	112.7	109.8	125.4	119.0	113.3


MANUFACTURING INDUSTRIES.
MONTHLY INDEXES 1926 = 1930.
MONTHLY AVERAGE 1926 = 100.
EMPLOYMENT.
105
100
95
90
85
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1926
1927
1929
1928
1930
JAN.
FEB.
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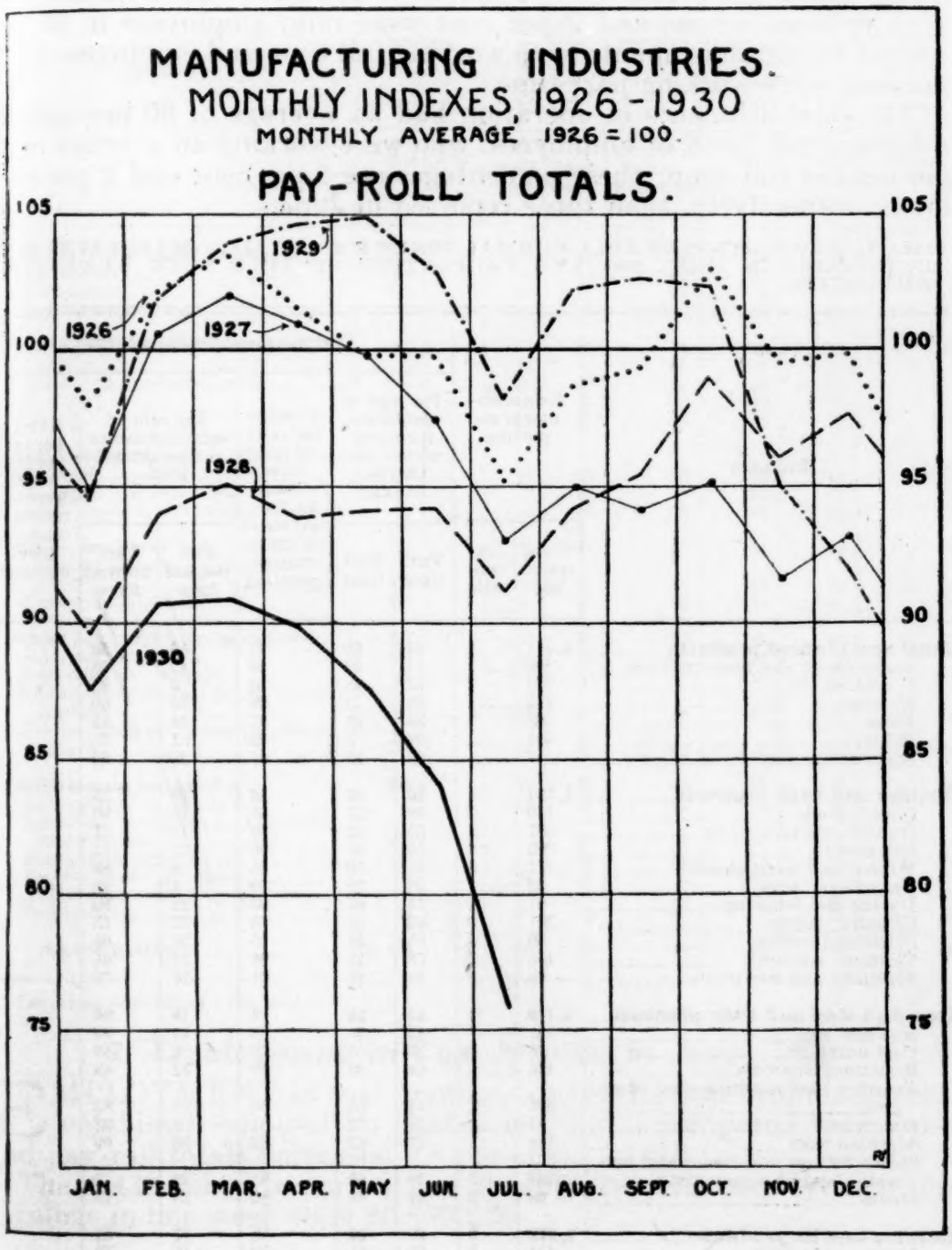
MANUFACTURING INDUSTRIES.
MONTHLY INDEXES, 1926-1930
MONTHLY AVERAGE 1926 = 100.
PAY-ROLL TOTALS.
105
100
95
90
85
80
75
1926
1927
1928
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1930
JAN.
FEB.
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MAY
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AUG.
SEPT.
OCT.
NOV.
DEC.

Force Employed and Time Worked in Manufacturing Industries in July, 1930

TEN THOUSAND FOUR HUNDRED AND NINE establishments in 54 manufacturing industries reported in July as to force employed and working time of employees. Twenty-five per cent of the establishments had a full normal force of employees, 73 per cent were working with reduced forces, and 2 per cent were idle; employees in 60 per cent of the establishments were working full time and employees in 38 per cent were working part time.

The establishments in operation had an average of 80 per cent of a full normal force of employees, who were working an average of 91 per cent of full time; these percentages are 5 per cent and 2 per cent lower, respectively, than those reported in June.

TABLE 7.—PROPORTION OF FULL NORMAL FORCE EMPLOYED IN MANUFACTURING INDUSTRIES IN JULY, 1930, AND PROPORTION OF FULL TIME WORKED BY EMPLOYEES

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Food and kindred products	**1,581**	**1**	**84**	**15**	**97**	**40**	**59**	**88**
Slaughtering and meat packing	160	------	84	16	99	42	58	89
Confectionery	238	2	53	45	89	5	93	83
Ice cream	212	------	88	12	98	40	60	92
Flour	308	1	83	15	97	44	55	91
Baking	651	------	94	6	99	51	49	95
Sugar refining, cane	12	------	83	17	97	58	42	102
Textiles and their products	**1,763**	**4**	**50**	**46**	**88**	**20**	**75**	**76**
Cotton goods	440	5	38	57	81	15	80	76
Hosiery and knit goods	287	3	55	42	88	19	77	77
Silk goods	266	4	55	41	90	25	71	76
Woolen and worsted goods	171	8	43	50	88	9	84	75
Carpets and rugs	23	------	22	78	79	4	96	80
Dyeing and finishing	97	1	31	68	80	19	80	77
Clothing, men's	201	5	62	33	95	32	63	84
Shirts and collars	80	5	61	34	95	26	69	88
Clothing, women's	135	2	73	24	98	33	65	83
Millinery and lace goods	63	5	49	46	91	16	79	73
Iron and steel and their products	**1,719**	**2**	**43**	**55**	**86**	**19**	**80**	**82**
Iron and steel	151	7	42	51	83	11	82	86
Cast-iron pipe	36	6	39	56	76	6	89	70
Structural ironwork	156	------	64	36	94	32	68	93
Foundry and machine-shop products	976	1	44	55	86	17	83	79
Hardware	57	------	23	77	81	7	93	67
Machine tools	144	1	37	62	85	30	69	90
Steam fittings and steam and hot-water heating apparatus	101	3	38	59	85	22	75	74
Stoves	98	3	34	63	82	23	73	79
Lumber and its products	**1,073**	**3**	**48**	**50**	**88**	**17**	**81**	**72**
Lumber, sawmills	474	3	55	41	90	18	79	74
Lumber, millwork	260	1	48	51	90	16	83	71
Furniture	339	3	37	60	85	15	82	70
Leather and its products	**380**	**2**	**67**	**32**	**94**	**29**	**69**	**96**
Leather	115	------	76	24	95	28	72	85
Boots and shoes	265	3	63	35	94	30	68	91
Paper and printing	**954**	**1**	**76**	**23**	**96**	**42**	**57**	**95**
Paper and pulp	151	5	64	31	93	32	63	91
Paper boxes	157	1	48	52	91	24	75	86
Printing, book and job	333	------	78	22	97	40	60	97
Printing, newspapers	313	------	94	6	100	59	41	100

TABLE 7.—PROPORTION OF FULL NORMAL FORCE EMPLOYED IN MANUFACTURING INDUSTRIES IN JULY, 1930, AND PROPORTION OF FULL TIME WORKED BY EMPLOYEES—Continued

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with—		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Chemicals and allied products	**273**	**1**	**72**	**27**	**95**	**16**	**83**	**77**
Chemicals	109	3	65	32	93	29	68	88
Fertilizers	128	1	70	29	94	5	95	38
Petroleum refining	36	.....	97	3	100	14	86	88
Stone, clay, and glass products	**809**	**5**	**67**	**29**	**92**	**18**	**78**	**77**
Cement	80	3	93	5	99	14	84	78
Brick, tile, and terra cotta	519	3	66	31	91	16	80	70
Pottery	97	6	46	47	85	20	74	85
Glass	113	11	72	18	95	26	64	80
Metal products, other than iron and steel	**204**	.....	**53**	**47**	**89**	**19**	**81**	**78**
Stamped and enameled ware	63	.....	52	48	89	21	79	83
Brass, bronze, and copper products	141	.....	54	46	89	18	82	76
Tobacco products	**194**	**3**	**59**	**38**	**93**	**34**	**64**	**97**
Chewing and smoking tobacco and snuff	24	4	54	42	91	25	71	94
Cigars and cigarettes	170	2	60	38	94	35	63	97
Vehicles for land transportation	**1,077**	(1)	**62**	**38**	**93**	**18**	**81**	**75**
Automobiles	176	1	44	56	85	25	74	74
Carriages and wagons	40	.....	65	35	93	15	85	65
Car building and repairing, electric-railroad	347	.....	82	18	97	32	68	89
Car building and repairing, steam-railroad	514	1	54	46	92	7	92	74
Miscellaneous industries	**382**	**2**	**57**	**42**	**92**	**23**	**75**	**82**
Agricultural implements	67	1	42	57	90	9	90	71
Electrical machinery, apparatus, and supplies	162	1	57	42	91	27	72	83
Pianos and organs	46	7	41	52	86	2	91	62
Rubber boots and shoes	6	.....	67	33	97	33	67	73
Automobile tires	34	.....	47	53	93	9	91	81
Shipbuilding	67	.....	85	15	99	49	51	95
All industries	**10,409**	**2**	**60**	**38**	**91**	**25**	**73**	**80**

[1] Less than one-half of 1 per cent.

2. Employment in Coal Mining in June, 1930

EMPLOYMENT in coal mining—anthracite and bituminous coal combined—showed no change in July as compared with June, and pay-roll totals decreased 9.8 per cent.

The 1,432 mines reported had in July 291,172 employees whose earnings in one week were $6,609,218.

Anthracite

IN ANTHRACITE mining in July there was an increase in employment of 0.9 per cent, as compared with June, and a decrease of 10.9 per cent in pay-roll totals.

Employment in July, 1930, was 10.1 per cent higher than in July, 1929, and pay-roll totals were 29.8 per cent higher.[a]

[a] For indexes of employment and pay-roll totals, see p. 191.

All anthracite mines reported are in Pennsylvania—the Middle Atlantic geographic division. The details for June and July are shown in Table 1.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ANTHRACITE MINES IN JUNE AND JULY, 1930

Geographic division	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
Middle Atlantic [1]	**153**	**93,674**	**94,521**	**+0.9**	**$3,030,505**	**$2,699,424**	**−10.9**

[1] See footnote 5, p. 170.

Bituminous Coal

EMPLOYMENT in bituminous coal mining decreased 0.4 per cent in July as compared with June, and pay-roll totals decreased 8.9 per cent, as shown by reports from 1,279 mines, in which there were, in July, 196,651 employees whose combined earnings in one week were $3,909,794.

Employment in July, 1930, was 6.5 per cent lower than in July, 1929, and pay-roll totals were 19.5 per cent smaller.[a]

Details for each geographic division, except the New England division, for which no coal mining is reported, are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL BITUMINOUS COAL MINES IN JUNE AND JULY, 1930

Geographic division [1]	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
Middle Atlantic	380	59,868	58,873	−1.7	$1,361,116	$1,235,713	−9.2
East North Central	165	24,015	24,806	+3.3	496,001	460,920	−7.1
West North Central	54	4,067	4,293	+5.6	75,034	80,256	+7.0
South Atlantic	318	51,128	50,946	−0.4	1,145,806	1,005,015	−12.3
East South Central	218	42,757	41,981	−1.8	816,111	736,544	−9.7
West South Central	27	1,939	2,079	+7.2	34,885	41,391	+18.6
Mountain	108	12,219	12,231	+0.1	324,155	308,300	−4.9
Pacific	9	1,427	1,442	+1.1	40,067	41,655	+4.0
All divisions	**1,279**	**197,420**	**196,651**	**−0.4**	**4,293,175**	**3,909,794**	**−8.9**

[1] See footnotes 5 to 12, p. 170.

3. Employment in Metalliferous Mining in July, 1930

METALLIFEROUS mines in July showed a decrease in employment of 4.9 per cent as compared with June, and pay-roll totals decreased 11.9 per cent. The 346 mines covered had in July 50,879 employees whose combined earnings in one week were $1,371,132.

Employment in July, 1930, was 20.7 per cent lower than in July, 1929, and pay-roll totals were 27.4 per cent lower.[a]

Details for each geographic division from which metalliferous mining is reported are shown in the following table:

[a] For indexes of employment and pay-roll totals, see p. 191.

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL METALLIFEROUS MINES IN JUNE AND JULY, 1930.

Geographic division [1]	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
Middle Atlantic	7	1,429	1,454	+1.7	$41,107	$37,638	−8.4
East North Central	49	12,650	12,835	+1.5	328,983	293,332	−10.8
West North Central	50	7,301	7,607	+4.2	229,042	241,742	+5.5
East South Central	12	2,858	2,827	−1.1	64,631	58,527	−9.4
West South Central	69	2,837	2,254	−20.5	73,047	57,568	−21.2
Mountain	125	23,657	21,438	−9.4	737,491	613,498	−16.8
Pacific	34	2,763	2,464	−10.8	82,708	68,827	−16.8
All divisions	**346**	**53,495**	**50,879**	**−4.9**	**1,557,009**	**1,371,132**	**−11.9**

[1] See footnotes 5 to 12, p. 170.

4. Employment in Quarrying and Nonmetallic Mining in July, 1930

A DECREASE of 0.4 per cent in employment and a decrease of 5.9 per cent in earnings from June to July were shown by reports received from 746 establishments in this industrial group. The reporting establishments had in July 37,384 employees whose combined pay roll in one week in July was $941,102.

Employment in July, 1930, was 14.1 per cent lower than in July, 1929, and pay-roll totals were 18.3 per cent less.[a]

Details for each geographic division are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL QUARRIES AND NONMETALLIC MINES IN JUNE AND JULY, 1930

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
New England	109	5,019	5,087	+1.4	$147,502	$152,316	+3.3
Middle Atlantic	128	7,225	7,237	+0.2	204,449	196,205	−4.0
East North Central	217	10,132	10,289	+1.5	323,544	299,102	−7.6
West North Central	71	2,303	2,529	+9.8	58,759	59,431	+1.1
South Atlantic	93	6,065	5,552	−8.5	116,127	102,674	−11.6
East South Central	56	3,225	3,168	−1.8	53,612	46,984	−12.4
West South Central	35	2,278	2,252	−1.1	56,225	50,205	−10.5
Mountain	4	22	105	+377.3	524	2,517	+380.3
Pacific	33	1,281	1,165	−9.1	39,265	31,578	−19.6
All divisions	**746**	**37,550**	**37,384**	**−0.4**	**1,029,007**	**941,102**	**−5.9**

[1] See footnotes 4 to 12, p. 170.

5. Employment in Crude Petroleum Production in July, 1930

REPORTS received from 521 crude petroleum producing establishments in July showed a decrease of 0.3 per cent in employment with an increase of 1.6 per cent in pay-roll totals. The establishments reporting had in July 25,794 employees whose combined earnings in one week were $910,312.

[a] For indexes of employment and pay-roll totals, see p. 191.

As data for this industry were not collected for the months prior to January, 1930, no comparison with July, 1929, can be made at this time.

Details for each geographic division, except New England, are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL CRUDE PETROLEUM PRODUCTION COMPANIES IN JUNE AND JULY, 1930

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
Middle Atlantic	39	667	639	−4.2	$19,386	$19,022	−1.9
East North Central	4	22	22	[2]	438	513	+17.1
West North Central	22	135	123	−8.9	3,588	3,296	−8.1
South Atlantic	13	606	619	+2.1	18,113	17,623	−2.7
East South Central	3	37	42	+13.5	1,124	1,230	+9.4
West South Central	359	21,888	21,994	+0.5	756,330	775,200	+2.5
Mountain	21	268	365	+36.2	9,650	13,151	+36.3
Pacific	60	2,248	1,990	−11.5	87,160	80,277	−7.9
All divisions	**521**	**25,871**	**25,794**	**−0.3**	**895,789**	**910,312**	**+1.6**

[1] See footnotes 5 to 12, p. 170. [2] No change.

6. Employment in Public Utilities in July, 1930

EMPLOYMENT in 11,091 establishments—telephone and telegraph companies, power, light, and water companies, and electric railroads, combined—increased 0.6 per cent in July as compared with June, and pay-roll totals increased 0.6 per cent. These establishments had in July 762,848 employees, whose combined earnings in one week were $23,144,598.

Employment in public utilities was 1.7 per cent lower in July, 1930, than in July, 1929, while pay-roll totals were 0.8 per cent greater.

Data for the three groups into which public utilities have been separated follow.

Telephone and Telegraph

EMPLOYMENT in telephone and telegraph companies was 0.2 per cent higher in July than in June, and earnings increased 3.1 per cent. The 7,675 establishments reporting had in July 352,765 employees, whose combined earnings in one week were $10,226,819.

Employment in July, 1930, was 2.5 per cent below the level of July, 1929, but pay-roll totals were 2.4 per cent higher in July, 1930, than in July, 1929.[a]

Details for each geographic division are shown in Table 1.

[a] For indexes of employment and pay-roll totals, see p. 191.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **TELEPHONE AND TELEGRAPH** ESTABLISHMENTS IN JUNE AND JULY, 1930

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
New England	574	30,103	31,450	+4.5	$898,240	$954,394	+6.3
Middle Atlantic	1,223	113,070	112,957	−0.1	3,535,521	3,619,154	+2.4
East North Central	1,344	80,066	79,740	−0.4	2,194,761	2,243,512	+2.2
West North Central	1,306	33,133	33,315	+0.5	804,159	829,313	+3.1
South Atlantic	559	22,947	22,417	−2.3	606,018	614,789	+1.4
East South Central	592	11,822	11,508	−2.7	256,828	259,725	+1.1
West South Central	688	20,198	19,980	−1.1	444,910	460,152	+3.4
Mountain	480	8,262	8,468	+2.5	196,615	209,983	+6.8
Pacific	909	32,303	32,930	+1.9	985,658	1,035,797	+5.1
All divisions	**7,675**	**351,904**	**352,765**	**+0.2**	**9,922,710**	**10,226,819**	**+3.1**

[1] See footnotes 4 to 12, p. 170.

Power, Light, and Water

EMPLOYMENT in power, light, and water plants was 1.2 per cent greater in July than in June, and pay-roll totals were 1.0 per cent lower. The 2,951 establishments reporting had in July 252,227 employees, whose combined earnings in one week were $7,930,227.

Employment in July, 1930, was 2.6 per cent higher than in July, 1929, and pay-roll totals were 4.3 per cent greater.[a]

Details for each geographic division are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **POWER, LIGHT, AND WATER** COMPANIES IN JUNE AND JULY, 1930

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
New England	253	21,941	22,192	+1.1	$712,952	$724,236	+1.6
Middle Atlantic	343	66,802	67,820	+1.5	2,201,174	2,217,741	+0.8
East North Central	515	59,356	60,745	+2.3	2,071,232	1,975,828	−4.6
West North Central	406	29,039	29,397	+1.2	876,834	870,382	−0.7
South Atlantic	250	24,016	24,201	+0.8	738,753	735,875	−0.4
East South Central	164	8,480	8,431	−0.6	194,602	206,094	+5.9
West South Central	559	17,095	16,720	−2.2	485,833	467,615	−3.7
Mountain	128	6,273	6,471	+3.2	198,076	198,275	+0.1
Pacific	333	16,248	16,250	+(2)	533,197	534,181	+0.2
All divisions	**2,951**	**249,250**	**252,227**	**+1.2**	**8,012,653**	**7,930,227**	**−1.0**

[1] See footnotes 4 to 12, p. 170. [2] Less than one-tenth of 1 per cent.

Electric Railroads

EMPLOYMENT in the operation and maintenance of electric railroads, exclusive of car shops, increased 0.5 per cent from June to July, while pay-roll totals decreased 1.4 per cent. The 465 establishments reporting had in July 157,856 employees whose combined earnings in one week were $4,987,552.

A comparison of employment and earnings in this group over the year period shows a drop of 6.8 and 6.2 per cent, respectively, in the two items.[a]

Details for each geographic division are shown in Table 3.

[a] For indexes of employment and pay-roll totals, see p. 191.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN THE OPERATION AND MAINTENANCE OF IDENTICAL **ELECTRIC RAILROADS** IN JUNE AND JULY, 1930

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
New England	44	14,607	15,132	+3.6	$526,682	$555,334	+5.4
Middle Atlantic	112	41,548	43,113	+3.8	1,305,527	1,296,035	−0.7
East North Central	108	48,166	47,325	−1.7	1,620,002	1,602,279	−1.1
West North Central	64	15,087	15,116	+0.2	484,373	449,078	−7.3
South Atlantic	50	8,776	8,876	+1.1	247,057	243,434	−1.5
East South Central	11	4,169	3,908	−6.3	107,632	108,085	+0.4
West South Central	28	5,259	5,173	−1.6	145,636	133,431	−8.4
Mountain	14	2,445	2,371	−3.0	68,112	65,980	−3.1
Pacific	34	17,065	16,842	−1.3	555,352	533,887	−3.9
All divisions	**465**	**157,122**	**157,856**	**+0.5**	**5,060,373**	**4,987,552**	**−1.4**

[1] See footnotes 4 to 12, p. 170.

7. Employment in Wholesale and Retail Trade in July, 1930

EMPLOYMENT in 8,825 establishments—wholesale and retail trade combined—showed a decrease of 4.2 per cent in July as compared with June, and pay-roll totals showed a decrease of 4.6 per cent. These establishments had in July 294,584 employees whose combined earnings in one week were $7,624,331.

Wholesale Trade

EMPLOYMENT in wholesale trade alone decreased 0.5 per cent in July as compared with June, and pay-roll totals decreased 2.6 per cent. The 2,074 establishments reporting had in July 64,755 employees and pay-roll totals of $2,024,982.

Employment in July, 1930, was 4.4 per cent lower than in July, 1929, and pay-roll totals were 4.5 per cent lower.[a]

Details for each geographic division are shown in Table 1.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **WHOLESALE TRADE** ESTABLISHMENTS IN JUNE AND JULY, 1930

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
New England	163	3,922	3,977	+1.4	$110,415	$113,020	+2.4
Middle Atlantic	364	9,961	9,948	−0.1	318,477	313,914	−1.4
East North Central	276	12,561	12,340	−1.8	414,407	396,974	−4.2
West North Central	264	14,310	14,300	−0.1	442,229	431,749	−2.4
South Atlantic	284	4,002	4,085	+2.1	122,676	121,757	−0.7
East South Central	73	1,945	1,914	−1.6	56,460	54,810	−2.9
West South Central	235	5,653	5,610	−0.8	175,585	172,694	−1.6
Mountain	78	1,812	1,806	−0.3	64,715	62,157	−4.0
Pacific	337	10,900	10,775	−1.1	373,982	357,907	−4.3
All divisions	**2,074**	**65,066**	**64,755**	**−0.5**	**2,078,946**	**2,024,982**	**−2.6**

[1] See footnotes 4 to 12, p. 171.

Retail Trade

EMPLOYMENT in retail trade decreased 5.2 per cent in July and pay-roll totals decreased 5.3 per cent.

The 6,751 establishments from which reports were received had in July 229,829 employees whose earnings in one week were $5,599,349.

[a] For indexes of employment and pay-roll totals, see p. 191.

Employment in July, 1930, was 4.9 per cent lower than in July, 1929, and pay-roll totals decreased 4.4 per cent.[a]

Details by geographic divisions are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL RETAIL TRADE ESTABLISHMENTS IN JUNE AND JULY, 1930

Geographic division[1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
New England	87	13,218	12,700	−3.9	$320,288	$306,530	−4.3
Middle Atlantic	311	47,183	43,251	−8.3	1,239,719	1,152,223	−7.1
East North Central	2,461	80,766	77,033	−4.6	2,064,993	1,987,606	−3.7
West North Central	677	19,974	19,003	−4.9	439,836	418,683	−4.8
South Atlantic	975	21,090	20,097	−4.7	462,054	443,401	−4.0
East South Central	351	7,027	6,675	−5.0	146,920	135,734	−7.6
West South Central	251	12,241	11,484	−6.2	259,939	242,300	−6.8
Mountain	175	3,414	3,401	−0.4	77,308	76,117	−1.5
Pacific	1,463	37,433	36,185	−3.3	904,328	836,755	−7.5
All divisions	**6,751**	**242,346**	**229,829**	**−5.2**	**5,915,385**	**5,599,349**	**−5.3**

[1] See footnotes 4 to 12, p. 170.

8. Employment in Hotels in July, 1930

EMPLOYMENT in hotels increased 3.4 per cent in July as compared with June, and pay-roll totals increased 1.7 per cent. The 2,153 hotels reporting had in July 167,635 employees whose earnings in one week were $2,822,743.

The New England and Mountain divisions showed the greatest increases, owing to the operation of summer-resort hotels. Employment increased 36.1 per cent and 29.1 per cent and pay-roll totals 25.5 per cent and 35.3 per cent, respectively, in the two districts. The Middle Atlantic and Pacific divisions reported small gains in both employment and pay-roll, while the four Central and the South Atlantic divisions show small decreases in both items. The greatest decreases were in the South Atlantic and East South Central divisions. This is due, in part at least, to the closing of seasonal hotels.

Employment in July, 1930, was 0.2 per cent higher than in July, 1929, while pay-roll totals did not change.[a]

Per capita earnings, obtained by dividing the total number of employees into the total amount of pay roll, should not be interpreted as being the entire earnings of hotel employees. The pay-roll totals here reported are cash payments only, with no regard to the value of board or room furnished employees, and, of course, no satisfactory estimate can be made of additional recompense in the way of tips. The additions to the money wages granted vary greatly, not only among localities but among hotels in one locality and among employees in one hotel. Some employees are furnished board and room, others are given board only for 1, 2, or 3 meals, while the division of tips is made in many ways.

Per capita earnings are further reduced by the considerable amount of part-time employment in hotels caused by conventions and banquets or other functions.

The details for each geographic division are shown in the table following.

[a] For indexes of employment and pay-roll totals, see p. 191.

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL HOTELS IN JUNE AND JULY, 1930

Geographic division [1]	Hotels	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
New England	157	9,618	13,086	+36.1	$156,560	$196,547	+25.5
Middle Atlantic	436	52,486	54,511	+3.9	957,501	979,929	+2.3
East North Central	410	34,084	33,724	−1.1	610,319	593,356	−2.8
West North Central	245	14,236	14,188	−0.3	211,300	208,223	−1.5
South Atlantic	188	13,161	12,550	−4.6	199,348	186,239	−6.6
East South Central	78	5,790	5,514	−4.8	74,957	70,148	−6.4
West South Central	152	9,846	9,719	−1.3	134,796	130,937	−2.9
Mountain	118	4,013	5,182	+29.1	68,634	92,892	+35.3
Pacific	369	18,921	19,161	+1.3	363,148	364,472	+0.4
All divisions	**2,153**	**162,155**	**167,635**	**+3.4**	**2,776,563**	**2,822,743**	**+1.7**

[1] See footnotes 4 to 12, p. 170.

9. Employment in Canning and Preserving in July, 1930

CANNING and preserving establishments reported a seasonal increase of 52.2 per cent in employment in July as compared with June and an increase of 38.3 per cent in pay-roll totals. Substantial increases in employment and pay roll were shown in seven of the nine geographic divisions.

Reports were received from 819 establishments having in July 67,319 employees and pay-roll totals in one week of $1,102,438.

Employment in July, 1930, was 0.4 lower than in July, 1929, and pay-roll totals increased 3.2 per cent over the year period.[a]

Details by geographic divisions are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL CANNING AND PRESERVING ESTABLISHMENTS IN JUNE AND JULY, 1930

Geographic division [1]	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		June, 1930	July, 1930		June, 1930	July, 1930	
New England	69	1,573	1,540	−2.1	$26,532	$30,238	+14.0
Middle Atlantic	79	8,592	13,710	+59.6	178,966	269,438	+50.6
East North Central	216	7,115	14,326	+101.3	140,356	253,610	+80.7
West North Central	54	1,374	2,703	+96.7	26,013	41,845	+60.9
South Atlantic	88	2,397	3,640	+51.9	30,613	40,969	+33.8
East South Central	33	1,145	1,098	−4.1	15,420	13,213	−14.3
West South Central	34	1,271	1,375	+8.2	7,829	10,410	+33.0
Mountain	47	1,526	6,064	+297.4	34,393	100,891	+193.3
Pacific	199	19,242	22,863	+18.8	337,120	341,824	+1.4
All divisions	**819**	**44,235**	**67,319**	**+52.2**	**797,242**	**1,102,438**	**+38.3**

[1] See footnotes 4 to 12, p. 170.

Indexes of Employment and Pay-Roll Totals—Mining, Quarrying, Public Utilities, Trade, Hotels, and Canning

THE following table shows the index numbers of employment and pay-roll totals for anthracite, bituminous coal, and metalliferous mining, quarrying, public utilities, wholesale and retail trade, hotels, and canning and preserving, from January, 1929, to July, 1930, with the monthly average for 1929 as 100.

[a] For indexes of employment and pay-roll totals, see p. 191.

INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS, JANUARY, 1929, TO JULY, 1930—MINING, QUARRYING, PUBLIC UTILITIES, TRADE, HOTELS, AND CANNING

[Monthly average, 1929=100]

Year and month	Anthracite mining		Bituminous coal mining		Metalliferous mining		Quarrying and non-metallic mining		Telephone and telegraph		Power, light, and water		Operation and maintenance of electric railroads [1]		Wholesale trade		Retail trade		Hotels		Canning and preserving	
	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals	Employment	Pay-roll totals
1929																						
January	105.7	100.7	106.4	106.1	93.1	88.0	91.6	85.9	94.3	94.5	92.9	91.7	99.7	98.7	97.7	96.7	99.2	99.6	97.1	98.5	50.8	57.3
February	106.0	122.1	107.7	116.6	94.6	91.8	91.9	88.9	95.3	93.0	92.6	91.8	99.1	97.6	96.9	96.4	94.6	94.5	99.8	102.0	48.9	59.2
March	98.0	90.8	106.8	108.6	97.0	99.1	96.0	95.0	96.5	98.7	92.8	94.5	97.0	98.0	97.3	98.5	96.2	96.1	100.9	103.4	49.4	54.9
April	100.7	88.3	100.2	89.2	100.6	104.6	99.6	100.5	97.8	98.3	95.9	95.5	98.5	99.5	97.9	97.8	95.5	96.0	99.7	100.6	90.6	98.9
May	103.7	99.0	96.6	91.9	100.8	104.6	104.1	107.1	100.4	99.4	98.4	98.1	100.4	101.0	99.0	99.0	97.3	97.1	98.1	98.9	62.0	71.2
June	92.9	80.7	94.7	90.0	103.8	105.6	106.6	110.5	101.5	100.0	100.7	100.4	101.2	101.7	99.2	98.6	97.4	98.6	99.3	98.7	76.6	71.9
July	83.2	64.7	94.1	85.6	101.5	99.0	104.7	104.7	102.6	104.1	103.2	102.3	102.2	101.9	100.4	100.5	93.6	95.9	101.1	99.8	126.8	109.2
August	91.1	78.4	95.7	92.8	103.2	100.1	106.7	110.3	103.7	101.8	105.4	103.8	102.2	102.0	101.3	100.0	93.6	95.2	102.6	99.4	184.8	180.1
September	101.9	103.8	97.2	98.6	102.1	102.0	106.6	109.8	102.5	100.4	105.5	106.6	101.4	101.5	101.9	103.3	97.6	99.2	102.8	100.2	210.1	207.9
October	106.1	133.9	98.8	106.8	101.9	103.1	103.6	105.8	101.9	105.1	105.7	106.0	100.5	100.0	102.9	102.7	101.7	102.6	100.6	100.2	143.3	134.5
November	104.0	100.5	101.0	106.0	103.0	102.2	98.6	96.0	101.9	101.2	104.7	104.1	99.4	98.4	102.9	101.9	106.7	105.2	100.0	99.8	95.1	91.6
December	107.1	137.2	101.3	108.2	98.5	99.7	90.1	85.4	101.8	103.9	102.5	105.8	98.3	99.8	102.6	104.7	126.2	120.6	97.7	98.9	61.3	63.4
Average	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
1930																						
January	102.1	105.8	102.5	101.4	95.7	92.7	79.6	71.9	101.6	105.1	99.6	99.7	97.1	97.8	100.0	100.0	98.9	99.7	100.4	100.3	46.1	50.3
February	106.9	121.5	102.4	102.1	92.3	92.5	79.8	73.5	100.2	101.9	98.8	100.4	95.1	95.7	98.5	98.3	94.4	96.0	102.4	103.8	45.7	51.5
March	82.6	78.5	98.6	86.4	90.9	90.8	83.0	80.0	99.4	105.8	99.7	102.1	94.4	95.4	97.7	99.7	93.9	95.5	102.4	104.4	49.7	50.8
April	84.1	75.0	94.4	81.7	89.3	88.3	87.4	85.4	98.9	103.4	100.7	102.6	95.2	97.1	97.3	97.9	97.3	97.5	100.1	100.3	74.8	72.6
May	93.8	98.8	90.4	77.5	87.5	85.6	90.8	90.2	99.7	103.2	103.4	104.5	95.2	96.0	96.8	97.4	96.7	97.3	98.0	98.4	65.7	66.9
June	90.8	94.3	88.4	75.6	84.6	81.6	90.3	90.9	99.8	103.4	104.6	107.8	94.8	97.0	96.5	98.6	93.9	96.8	98.0	98.1	83.0	81.5
July	91.6	84.0	88.0	68.9	80.5	71.9	89.9	85.5	100.0	106.6	105.9	106.7	95.3	95.6	96.0	96.0	89.0	91.7	101.3	99.8	126.3	112.7

[1] Not including car building and repairing, electric railroads; see vehicles group, manufacturing industries, page 174, et seq.

Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to June, 1930, on Class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON **CLASS I STEAM RAILROADS** IN THE UNITED STATES, JANUARY, 1923, TO JUNE, 1930

[Monthly average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930
January	98.3	96.9	95.6	95.8	95.5	89.3	88.2	86.3
February	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4
March	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5
April	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0
May	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6
June	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5
July	108.2	98.1	99.4	102.9	101.0	95.6	96.6	.....
August	109.4	99.0	99.7	102.7	99.5	95.7	97.4	.....
September	107.8	99.7	99.9	102.8	99.1	95.3	96.8	.....
October	107.3	100.8	100.7	103.4	98.9	95.3	96.9	.....
November	105.2	99.0	99.1	101.2	95.7	92.9	93.0	.....
December	99.4	96.0	97.1	98.2	91.9	89.7	88.8	.....
Average	**104.1**	**98.3**	**97.9**	**100.0**	**97.5**	**92.9**	**93.3**	[1] 86.6

[1] Average for 6 months.

Table 2 shows the total number of employees on the 15th day each of June, 1929, and May and June, 1930, and pay-roll totals for the entire months.

In these tabulations data for the occupational group reported as "Executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—JUNE, 1929, AND MAY AND JUNE, 1930

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	June, 1929	May, 1930	June, 1930	June, 1929	May, 1930	June, 1930
Professional, clerical, and general	**271,284**	**260,633**	**256,686**	**$39,299,958**	**$38,589,452**	**$37,421,105**
Clerks	153,858	145,221	142,980	21,067,950	20,424,305	19,614,331
Stenographers and typists	24,755	24,130	23,811	3,209,817	3,193,339	3,099,865
Maintenance of way and structures	**462,381**	**408,042**	**394,934**	**42,922,484**	**38,441,526**	**36,706,745**
Laborers, extra gang and work train	86,026	69,309	65,464	6,848,985	5,273,817	4,965,985
Laborers, track, and roadway section	238,302	208,997	201,585	17,354,263	15,313,913	14,422,788
Maintenance of equipment and stores	**454,915**	**422,185**	**410,674**	**62,462,778**	**57,690,602**	**53,606,881**
Carmen	99,434	90,577	87,465	15,659,761	14,094,616	12,883,925
Machinists	54,519	52,413	51,380	9,003,604	8,524,700	7,928,924
Skilled trades helpers	101,395	92,808	90,382	11,982,219	10,809,096	9,963,655
Laborers (shops, engine houses, power plants, and stores)	36,992	34,715	33,703	3,509,281	3,371,566	3,163,351
Common laborers (shops, engine houses, power plants, and stores)	52,320	47,385	45,709	4,261,795	3,830,098	3,490,479

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—JUNE, 1929, AND MAY AND JUNE, 1930—Continued

Occupation	Number of employees at middle of month			Total earnings		
	June, 1929	May, 1930	June, 1930	June, 1929	May, 1930	June, 1930
Transportation, other than train, engine and yard	**197,632**	**184,906**	**183,210**	**$24,763,061**	**$23,701,857**	**$22,804,754**
Station agents	29,311	28,855	28,797	4,616,158	4,692,364	4,521,767
Telegraphers, telephoners, and towermen	23,227	22,101	21,904	3,571,506	3,513,063	3,361,993
Truckers (stations, warehouses, and platforms)	33,864	30,052	28,660	3,241,798	2,894,452	2,638,651
Crossing and bridge flagmen and gatemen	20,709	20,015	19,996	1,594,046	1,570,017	1,562,279
Transportation (yard masters, switch tenders, and hostlers)	**21,718**	**20,622**	**20,370**	**4,267,384**	**4,100,412**	**3,967,522**
Transportation, train and engine	**311,274**	**288,935**	**281,683**	**64,042,679**	**59,064,702**	**55,553,538**
Road conductors	35,363	32,553	32,140	8,609,180	7,992,501	7,596,539
Road brakemen and flagmen	69,144	63,433	62,346	12,302,678	11,231,814	10,564,100
Yard brakemen, and yard helpers	52,357	49,101	47,165	9,356,047	8,589,941	7,976,858
Road engineers and motormen	41,700	38,820	38,146	11,528,434	10,647,276	10,049,274
Road firemen and helpers	42,311	39,386	38,694	8,475,093	7,776,660	7,356,153
All employees	**1,719,274**	**1,584,643**	**1,547,557**	**237,758,344**	**221,588,551**	**210,060,545**

Changes in Employment and Pay Rolls in Various States

THE following data as to changes in employment and pay rolls have been compiled from reports received from the various State labor offices:

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES

Monthly period

State, and industry group	Per cent of change, May to June, 1930	
	Employment	Pay roll
Illinois		
Stone, clay, and glass products	−1.4	−8.6
Metals, machinery, and conveyances	−5.4	−9.4
Wood products	+1.4	−4.3
Furs and leather goods	+6.0	+13.2
Chemicals, oils, paints, etc.	−2.6	−6.6
Printing and paper goods	−1.2	−.2
Textiles	−6.1	−4.7
Clothing and millinery	+3.5	+9.9
Food, beverages, and tobacco	+4.5	+6.2
Miscellaneous	−6.6	−8.6
All manufacturing	−2.4	−5.0
Trade, wholesale and retail	−4.4	−4.8
Services	+.8	+1.1
Public utilities	−.9	+.2
Coal mining	−4.6	−7.6
Building and contracting	+13.5	+11.8
All nonmanufacturing	−1.1	−.4
All industries	−2.0	−3.3

State, and industry group	Per cent of change, June to July, 1930	
	Employment	Pay roll
Iowa		
Food and kindred products	+.5	
Textiles	−10.0	
Iron and steel works	−10.1	
Lumber products	−4.9	
Leather products	−5.6	
Paper products, printing, and publishing	+.3	
Patent medicines, chemicals, and compounds	+13.8	
Stone and clay products	−1.1	
Tobacco and cigars	+.4	
Railway-car shops	+.5	
Various industries	−1.7	
All industries	−3.6	
Maryland		
Food products	+3.2	+5.1
Textiles	−2.4	−4.2
Iron and steel, and their products	−1.4	−3.9
Lumber and its products	−4.6	−.3
Leather and its products	−12.3	−21.6
Rubber tires	−10.1	−6.4
Paper and printing	−1.1	−6.8
Maryland—Continued		
Chemicals and allied products	+0.6	−2.7
Stone, clay, and glass products	−19.0	−18.8
Metal products other than iron and steel	−1.2	−8.5
Tobacco products	+6.1	−19.1
Transportation equipment	−11.0	−14.0
Car building and repairing	−25.1	−24.1
Miscellaneous	−6.9	−10.7
All manufacturing	−3.4	−5.6
Retail department stores	−5.2	−2.8
Wholesale establishments	+9.0	+.1
Public utilities	+.1	−3.4
Coal mines	+.5	−2.0
Hotels	−6.3	−13.2
Quarries	−5.7	−7.6

State, and industry group	Employment—index numbers (1925–1927 = 100)	
	May, 1930	June, 1930
Massachusetts		
Boot and shoe cut stock and findings	96.5	93.4
Boots and shoes	82.6	69.8
Bread and other bakery products	108.0	109.1
Clothing, men's	75.5	83.7
Clothing, women's	109.5	106.5
Confectionery	82.7	78.5
Cotton goods	62.6	57.7
Dyeing and finishing textiles	92.1	91.0
Electrical machinery, apparatus, and supplies	71.6	72.7
Foundry and machine-shop products	105.0	104.2
Furniture	83.7	80.9
Hosiery and knit goods	71.2	72.4
Leather, tanned, curried, and finished	92.3	91.5
Paper and wood pulp	94.1	93.1
Printing and publishing	105.4	103.9
Rubber footwear	77.6	74.1
Rubber goods, tires, and tubes	69.3	67.6
Silk goods	79.7	76.6
Textile machinery and parts	66.5	63.0
Woolen and worsted goods	68.1	71.4
All industries	78.3	75.6

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Per cent of change, April to May, 1930	
	Employment	Pay roll
New Jersey		
Food and kindred products	−0.7	−0.9
Textiles and their products	−3.1	−2.9
Iron and steel and their products	−3.0	−4.6
Lumber and its products	+1.9	−.3
Leather and its products	−3.9	−7.6
Tobacco products	+9.4	+7.5
Paper and printing	−1.3	−.1
Chemicals and allied products	−.2	+1.2
Stone, clay, and glass products	−.9	−3.0
Metal products other than iron and steel	−1.5	−4.9
Vehicles for land transportation	+3.1	−.2
Miscellaneous	−.8	+1.0
All industries	−1.4	−2.0
	June to July, 1930	
New York		
Stone, clay and glass	−6.9	−9.8
Miscellaneous stone and minerals	−3.5	−13.1
Lime, cement, and plaster	−4.7	−8.0
Brick, tile, and pottery	−2.5	−6.1
Glass	−16.0	−11.3
Metals and machinery	−6.9	−9.8
Silver and jewelry	−2.6	−4.3
Brass, copper, and aluminum	−2.6	−9.8
Iron and steel	−13.2	−14.1
Structural and architectural iron	+.4	+2.9
Sheet metal and hardware	−.7	−3.2
Firearms, tools, and cutlery	−2.8	−2.9
Cooking, heating, and ventilating apparatus	−9.4	−13.4
Machinery, including electrical apparatus	−5.6	−9.1
Automobiles, carriages, and airplanes	−19.0	−22.6
Railroad equipment and repair	−4.7	−5.9
Boat and ship building	−9.2	−12.8
Instruments and appliances	−6.3	−8.3
Wood manufactures	−3.3	−5.0
Saw and planing mills	+.8	−.7
Furniture and cabinetwork	−3.7	−6.0
Pianos and other musical instruments	−5.9	−4.9
Miscellaneous wood	−5.3	−9.0
Furs, leather, and rubber goods	−2.9	+1.8
Leather	−3.3	−8.1
Furs and fur goods	−2.2	+2.2
Shoes	+2.3	+10.6

State, and industry group	Per cent of change, June to July, 1930	
	Employment	Pay roll
New York—Continued		
Furs, leather, and rubber goods—Continued.		
Other leather and canvas goods	−23.2	−23.4
Rubber and gutta percha	−5.9	−8.0
Pearl, horn, bone, etc.	−11.9	−7.0
Chemicals, oils, paints, etc.	−1.6	−3.4
Drugs and chemicals	−2.6	−3.7
Paints and colors	−6.5	−7.0
Oil products	−3.8	−5.5
Miscellaneous chemicals	+1.8	−.9
Paper	−5.6	−8.3
Printing and paper goods	−.3	−2.1
Paper boxes and tubes	−2.9	−1.2
Miscellaneous paper goods	−.3	+1.9
Printing and bookmaking	+.1	−2.5
Textiles	−8.6	−9.6
Silk and silk goods	−1.9	−4.3
Wool manufactures	+1.3	+3.1
Cotton goods	−25.1	−31.4
Knit goods (excluding silk)	−18.9	−21.3
Other textiles	−8.4	−10.6
Clothing and millinery	−5.0	−4.3
Men's clothing	+10.4	+16.3
Men's furnishings	−4.5	−5.6
Women's clothing	−17.1	−11.2
Women's underwear	−11.3	−18.2
Women's headwear	−29.4	−33.3
Miscellaneous sewing	−4.6	−6.2
Laundering and cleaning	−.6	−4.3
Food and tobacco	+12.5	+8.6
Flour, feed, and cereals	+3.8	+10.7
Canning and preserving	+157.4	+153.1
Other groceries	+.5	+3.3
Meat and dairy products	−1.2	−1.7
Bakery products	−2.4	−3.9
Candy	+3.7	−.5
Beverages	+5.0	+5.6
Tobacco	−1.3	−2.4
Water, light, and power	+.3	−1.1
All industries	−3.7	−5.2
Oklahoma		
Cottonseed-oil mills	+8.3	+10.9
Food production:		
Bakeries	+2.0	+9.0
Confections	−6.0	−.8
Creameries and dairies	+2.3	+1.1
Flour mills	+.8	−5.9
Ice and ice cream	+23.5	+19.6
Meat and poultry	−5.6	−2.0
Lead and zinc:		
Mines and mills	−23.3	−5.0
Smelters	−12.1	−17.5
Metals and machinery:		
Auto repairs, etc.	+24.8	+20.1
Machine shops and foundries	+7.6	+4.1
Tank construction and erection	+4.4	+28.7

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Per cent of change, June to July, 1930	
	Employment	Pay roll
Oklahoma—Continued		
Oil industry:		
Producing and gasoline manufacture	−9.0	−14.7
Refineries	+10.9	+4.9
Printing: Job work	−3.3	−2.0
Public utilities:		
Steam-railway shops	−3.9	−2.0
Street railways	−9.1	−29.3
Water, light, and power	+3.8	+6.1
Stone, clay, and glass:		
Brick and tile	−37.5	−.3
Cement and plaster	−5.9	−6.9
Crushed stone	+31.5	+10.3
Glass manufacture	−14.6	−13.4
Textiles and cleaning:		
Textile manufacture	−4.1	+11.1
Laundries, etc	+3.1	+3.7
Woodworking:		
Sawmills	−4.6	−6.1
Millwork, etc	−3.8	−6.1
All industries	+.2	−1.1

State, and industry group	Index numbers (1923–1925=100)—employment	
	June, 1930	July, 1930
Pennsylvania		
Metal products	90.9	87.4
Transportation equipment	78.4	[1] 74.9
Textile products	97.5	86.0
Foods and tobacco	112.0	110.0
Stone, clay, and glass products	71.6	68.1
Lumber products	80.7	74.1
Chemical products	100.9	94.5
Leather and rubber products	97.1	97.2
Paper and printing	98.7	97.0
All manufacturing	93.7	88.9
	Pay roll	
Metal products	89.8	81.5
Transportation equipment	74.9	[1] 64.1
Textile products	90.3	71.4
Foods and tobacco	108.5	104.6
Stone, clay, and glass products	69.1	55.0
Lumber products	71.0	69.0
Chemical products	106.5	98.7
Leather and rubber products	135.6	132.1
Paper and printing	105.1	99.5
All manufacturing	91.3	81.9

State, and industry group	Per cent of change, June to July, 1930	
	Employment	Pay roll
Texas		
Auto and body works	−5.2	
Bakeries	−2.0	
Confectioneries	−9.9	
Pure food products	−3.6	
Ice-cream factories	−2.6	
Flour mills	+5.7	
Ice factories	−2.7	
Meat packing and slaughtering	+.1	
Cotton-oil mills	+10.2	
Cotton compresses	−13.5	
Men's clothing manufacture	−8.8	
Women's clothing manufacture	−29.6	
Brick, tile, and terra cotta	−21.1	
Foundries and machine shops	−5.6	
Structural-iron works	+6.8	
Railroad-car shops	−8.2	
Electric railway car shops	+.6	
Petroleum refining	−4.4	
Sawmills	−1.0	
Lumber mills	−.8	
Furniture manufacturers	−14.8	
Paper-box manufacturers	+3.4	
Cotton textile mills	−3.2	
Cement plants	−9.9	
Commercial printing	+2.2	
Newspaper publishing	+11.1	
Quarrying, nonmetallic mines	−17.7	
Public utilities	−1.2	
Retail stores	−5.8	
Wholesale stores	−1.1	
Hotels	−1.0	
Miscellaneous	+1.7	
All industries	−3.4	

State, and industry group	May to June, 1930	
	Employment	Pay roll
Wisconsin		
Manual		
Logging	+0.1	+21.0
Mining:		
Lead and zinc	−15.1	−3.0
Iron	+1.6	+1.2
Stone crushing and quarrying	+11.7	+4.9
Manufacturing:		
Stone and allied industries	+5.7	+2.1
Metal	−5.8	−12.1
Wood	−4.4	−5.9
Rubber	−15.4	−26.9
Leather	−2.1	+1.8
Paper	+.1	−.7
Textiles	−2.5	−5.6
Foods	−2.1	−1.3
Printing and publishing	−3.7	−1.2
Chemicals (including soap, glue, and explosives)	+3.8	−1.0
All manufacturing	−4.1	−7.1

[1] Preliminary figures.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Per cent of change, May to June, 1930	
	Employment	Pay roll
Wisconsin—Continued		
Manual—Continued		
Construction:		
Building	+5.9	+0.7
Highway	+16.6	+22.9
Railroad	+12.8	+19.8
Marine dredging, sewer digging	−1.6	−4.8
Communication:		
Steam railways	+3.4	+11.9
Electric railways	−1.8	−1.1
Express, telephone, and telegraph	−2.9	+3.5
Light and power	+1.6	+5.5
Wholesale trade	+2.1	−.9
Hotels and restaurants	+2.5	
Laundering and dyeing	−1.9	−4.1

State, and industry group	Per cent of change, May to June, 1930	
	Employment	Pay roll
Wisconsin—Continued		
Nonmanual		
Manufacturing, mines, and quarries	−0.6	+2.6
Construction	+1.4	+3.7
Communication	+4.5	+5.8
Wholesale trade	+.2	+1.3
Retail trade, sales force only	−3.0	−1.4
Miscellaneous professional services	+.9	−2.6

Yearly period

State, and industry group	Per cent of change, June, 1929, to June, 1930	
	Employment	Pay roll
California		
Stone, clay, and glass products	−17.0	−18.6
Metals, machinery, and conveyances	−14.0	−14.8
Wood manufactures	−20.8	−21.9
Leather and rubber goods	−20.9	−24.4
Chemicals, oils, paints, etc.	−19.6	−15.7
Printing and paper goods	+1.1	−.9
Textiles	−4.5	−4.7
Clothing, millinery, and laundering	−10.1	−10.9
Foods, beverages, and tobacco	+2.7	+5.4
Miscellaneous	−30.6	−16.6
All industries	−12.8	−12.5
Public utilities	−5.2	+.1

State, and industry group	Employment—index numbers (1925-1927=100)	
	June, 1929	June, 1930
Massachusetts		
Boot and shoe cut stock and findings	104.7	93.4
Boots and shoes	76.7	69.8
Bread and other bakery products	112.0	109.1
Clothing, men's	100.5	83.7
Clothing, women's	139.7	106.5
Confectionery	83.9	78.5
Cotton goods	79.0	57.7
Dyeing and finishing textiles	100.5	91.0

State, and industry group	Employment—index numbers (1925-1927=100)	
	June, 1929	June, 1930
Massachusetts—Contd.		
Electrical machinery, apparatus, and supplies	97.2	72.7
Foundry and machine-shop products	108.9	104.2
Furniture	94.1	80.9
Hosiery and knit goods	75.1	72.4
Leather, tanned, curried, and finished	98.2	91.5
Paper and wood pulp	96.3	93.1
Printing and publishing	105.5	103.9
Rubber footwear	89.6	74.1
Rubber goods, tires, and tubes	78.8	67.6
Silk goods	87.0	76.6
Textile machinery and parts	86.8	63.0
Woolen and worsted goods	80.9	71.4
All industries	88.2	75.6

State, and industry group	Per cent of change, July, 1929, to July, 1930	
	Employment	Pay roll
New York		
Stone, clay, and glass	−20.3	−26.6
Miscellaneous stone and minerals	−24.8	−32.9
Lime, cement, and plaster	−19.7	−27.4
Brick, tile, and pottery	−15.6	−23.3
Glass	−20.9	−19.8

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Yearly period—Continued

State, and industry group	Per cent of change, July, 1929, to July, 1930	
	Employment	Pay roll
New York—Continued		
Metals and machinery	−22.3	−26.3
Silver and jewelry	−8.6	−15.1
Brass, copper, and aluminum	−14.5	−24.9
Iron and steel	−30.7	−35.0
Structural and architectural iron	+4.2	+6.4
Sheet-metal and hardware	−17.0	−19.8
Firearms, tools, and cutlery	−3.4	−4.4
Cooking, heating, and ventilating apparatus	−12.2	−21.4
Machinery, including electrical apparatus	−24.2	−27.8
Automobiles, carriages, and airplanes	−50.3	−54.9
Railroad equipment and repair	−11.4	−13.5
Boat and ship building	+5.9	+2.4
Instruments and appliances	−14.7	−16.5
Wood manufactures	−15.0	−20.0
Saw and planing mills	−5.8	−6.1
Furniture and cabinet work	−20.9	−26.4
Pianos and other musical instruments	−24.5	−32.6
Miscellaneous wood	−7.4	−13.7
Furs, leather, and rubber goods	−5.1	−15.2
Leather	−2.7	−3.4
Furs and fur goods	+7.9	+1.2
Shoes	+2.4	−12.6
Other leather and canvas goods	−19.6	−24.8
Rubber and guttapercha	−31.8	−35.1
Pearl, horn, bone, etc.	−28.1	−23.4
Chemicals, oils, paints, etc.	−1.7	−1.4
Drugs and chemicals	−8.3	−8.1
Paints and colors	−13.6	−12.4
Oil products	−9.3	−9.9
Miscellaneous chemicals	+13.1	+13.6
Paper	−10.0	−16.1
Printing and paper goods	−1.7	−2.6
Paper boxes and tubes	−9.0	−10.1
Miscellaneous paper goods	−3.9	−2.2
Printing and bookmaking	−.4	−2.0
Textiles	−22.1	−29.4
Silk and silk goods	−15.3	−18.8
Wool manufactures	−25.8	−38.4
Cotton goods	−47.2	−56.4
Knit goods (excluding silk)	−22.6	−29.1
Other textiles	−9.3	−11.9
Clothing and millinery	−14.4	−19.0
Men's clothing	−13.7	−22.1
Men's furnishings	−22.8	−36.7
Women's clothing	−1.9	+2.7
Women's underwear	−17.3	−21.6
Women's headwear	−16.0	−20.5
Miscellaneous sewing	−16.8	−17.7
Laundering and cleaning	−2.4	−2.2
Food and tobacco	−.4	−2.0
Flour, feed, and cereals	−12.7	−3.0
Canning and preserving	+89.8	+112.8
Other groceries	−2.8	+.4
Meat and dairy products	−6.8	−7.4
Bakery products	−10.4	−10.7
Candy	−8.1	−9.1
Beverages	−15.2	−14.2
Tobacco	−35.3	−37.4
Water, light, and power	+3.6	+3.6
All industries	−14.5	−18.5
Oklahoma		
Cottonseed-oil mills	−21.3	−18.3
Food production:		
Bakeries	+72.0	+22.2
Confections	+38.2	+39.7
Creameries and dairies	+51.1	+49.7
Flour mills	+1.9	+12.7
Ice and ice cream	−16.5	−14.9
Meat and poultry	−6.1	−3.5
Lead and zinc:		
Mines and mills	−49.3	−36.9
Smelters	−54.6	−62.1
Metals and machinery:		
Auto repairs, etc.	+3.3	+7.0
Machine shops and foundries	−.7	−17.6
Tank construction and erection	+74.1	+102.1
Oil industry:		
Producing and gasoline manufacture	+3.2	+6.0
Refineries	+10.9	+21.5
Printing: Job work	+13.0	+9.1
Public utilities:		
Steam railway shops	+89.0	+48.8
Street railways	−7.9	−25.6
Water, light, and power	+5.3	+.0
Stone, clay, and glass:		
Brick and tile	−14.8	−20.3
Cement and plaster	+7.0	+16.1
Crushed stone	+22.4	+3.8
Glass manufacture	+6.4	+4.9
Textiles and cleaning:		
Textile manufacture	+5.4	−1.6
Laundries, etc.	+36.7	+43.1
Woodworking:		
Sawmills	−8.0	−5.9
Millwork, etc.	−5.7	−6.8
All industries	−.3	+.6

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Yearly period—Continued

State, and industry group	Index numbers (1923-1925=100)—employment	
	July, 1929	July, 1930
Pennsylvania		
Metal products	103.1	87.4
Transportation equipment	80.3	[1] 74.9
Textile products	102.7	86.0
Foods and tobacco	104.6	110.0
Stone, clay, and glass products	86.0	68.1
Lumber products	99.6	74.1
Chemical products	100.9	94.5
Leather and rubber products	98.7	97.2
Paper and printing	100.0	97.0
All manufacturing	100.4	88.9
	Pay roll	
Metal products	105.4	81.5
Transportation equipment	85.0	[1] 64.1
Textile products	104.3	71.4
Foods and tobacco	102.7	104.6
Stone, clay, and glass products	83.6	55.0
Lumber products	98.0	69.0
Chemical products	104.7	98.7
Leather and rubber products	135.9	132.1
Paper and printing	103.2	99.5
All manufacturing	102.3	81.9

State, and industry group	Per cent of change, July, 1929, to July, 1930	
	Employment	Pay roll
Texas		
Auto and body works	−18.7	
Bakeries	−8.7	
Confectioneries	−29.4	
Pure-food products	+7.0	
Ice-cream factories	+13.3	
Flour mills	+4.8	
Ice factories	−14.6	
Meat packing and slaughtering	−1.7	
Cotton-oil mills	−33.3	
Cotton compresses	−1.8	
Men's clothing manufacture	−19.6	
Women's clothing manufacture	−38.7	
Brick, tile, and terra cotta	−34.4	
Foundries and machine shops	−18.4	
Structural-iron works	−22.1	
Railroad car shops	−9.4	
Electric-railway car shops	−.9	
Petroleum refining	−14.1	
Sawmills	−5.1	
Lumber mills	−45.5	
Furniture manufacturers	−18.6	
Paper-box manufacturers	+4.5	
Cotton textile mills	+14.7	
Cement plants	−17.2	
Commercial printing	−5.8	
Newspaper publishing	+13.2	
Quarrying, nonmetallic mines	−33.9	
Public utilities	−2.4	
Retail stores	−2.2	
Wholesale stores	−4.3	
Hotels	−1.7	
Miscellaneous	+.2	
All industries	−9.4	

[1] Preliminary figures.

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in the United States

THE following tables are compiled from simple averages of the actual selling prices received monthly by the Bureau of Labor Statistics from retail dealers.[1]

Table 1 shows for the United States retail prices of food on July 15, 1929, and June 15 and July 15, 1930, as well as the percentage changes in the year and in the month. For example, the retail price per pound of round steak was 47.0 cents on July 15, 1929; 42.7 cents on June 15, 1930; and 41.1 cents on July 15, 1930. These figures show decreases of 13 per cent in the year and 4 per cent in the month.

The cost of various articles of food combined shows a decrease of 9.2 per cent July 15, 1930, as compared with July 15, 1929, and a decrease of 2.6 per cent July 15, 1930, as compared with June 15, 1930.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE JULY 15, 1930, COMPARED WITH JUNE 15, 1930, AND JULY 15, 1929

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) July 15, 1930, compared with—	
		July 15, 1929	June 15, 1930	July 15, 1930	July 15, 1929	June 15, 1930
Sirloin steak	Pound	52.5	47.9	46.3	−12	−3
Round steak	do	47.0	42.7	41.1	−13	−4
Rib roast	do	38.2	35.1	34.0	−11	−3
Chuck roast	do	31.3	28.1	26.6	−15	−5
Plate beef	do	21.5	19.4	18.1	−16	−7
Pork chops	do	39.5	36.6	36.5	−8	−0.3
Bacon, sliced	do	44.3	42.3	42.3	−5	0
Ham, sliced	do	56.4	54.0	53.9	−4	−0.2
Lamb, leg of	do	41.1	36.6	35.7	−13	−2
Hens	do	39.9	35.7	34.4	−14	−4
Salmon, red, canned	do	31.5	31.8	31.9	+1	+0.3
Milk, fresh	Quart	14.3	14.0	13.9	−3	−1
Milk, evaporated	16-oz. can	10.9	10.1	10.0	−8	−1
Butter	Pound	53.4	43.3	43.7	−18	+1
Oleomargarine (all butter substitutes)	do	27.2	25.6	25.6	−6	0
Cheese	do	37.9	34.9	34.3	−10	−2
Lard	do	18.3	16.6	16.3	−11	−2
Vegetable lard substitute	do	24.8	24.3	24.3	−2	0
Eggs, strictly fresh	Dozen	44.1	33.6	35.1	−20	+4
Bread	Pound	9.0	8.8	8.8	−2	0

[1] In addition to monthly retail prices of food and coal, the bureau publishes periodically the prices of gas and electricity for household use in each of 51 cities. At present this information is being collected in June and December of each year.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE JULY 15, 1930, COMPARED WITH JUNE 15, 1930, AND JULY 15, 1929—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) July 15, 1930, compared with—	
		July 15, 1929	June 15, 1930	July 15, 1930	July 15, 1929	June 15, 1930
Flour	Pound	5.0	4.8	4.6	−8	−4
Corn meal	do	5.3	5.3	5.3	0	0
Rolled oats	do	8.8	8.7	8.7	−1	0
Corn flakes	8-oz. package	9.5	9.4	9.4	−1	0
Wheat cereal	28-oz. package	25.5	25.4	25.4	−0.4	0
Macaroni	Pound	19.7	19.4	19.3	−2	−1
Rice	do	9.7	9.5	9.5	−2	0
Beans, navy	do	14.3	11.5	11.5	−20	0
Potatoes	do	3.9	4.2	3.3	−15	−21
Onions	do	7.0	5.9	5.8	−17	−2
Cabbage	do	4.8	5.6	4.4	−8	−21
Pork and beans	No. 2 can	11.9	11.0	11.0	−8	0
Corn, canned	do	15.8	15.4	15.3	−3	−1
Peas, canned	do	16.6	16.3	16.2	−2	−1
Tomatoes, canned	do	13.8	12.4	12.4	−10	0
Sugar	Pound	6.4	6.1	6.1	−5	0
Tea	do	77.4	77.9	77.6	+0.3	−0.4
Coffee	do	49.4	40.6	40.4	−18	−0.4
Prunes	do	14.7	17.0	16.4	+12	−4
Raisins	do	11.7	12.0	11.9	+2	−1
Bananas	Dozen	32.1	31.0	30.6	−5	−1
Oranges	do	44.9	67.2	64.0	+43	−5
Weighted food index					−9.2	−2.6

Table 2 shows for the United States average retail prices of specified food articles on July 15, 1913, and on July 15 of each year from 1924 to 1930, together with percentage changes in July of each of these specified years compared with July, 1913. For example, the retail price per pound of rib roast was 20.2 cents in July, 1913; 29.1 cents in July, 1924; 30.4 cents in July, 1925; 30.7 cents in July, 1926; 31.7 cents in July, 1927; 36 cents in July, 1928; 38.2 cents in July, 1929; and 34 cents in July, 1930.

As compared with July, 1913, these figures show increases of 44 per cent in July, 1924; 50 per cent in July, 1925; 52 per cent in July, 1926; 57 per cent in July, 1927; 78 per cent in July, 1928; 89 per cent in July, 1929; and 68 per cent in July, 1930.

The cost of the various articles of food combined showed an increase of 44.6 per cent in July, 1930, as compared with July, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE JULY 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH JULY 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail prices on July 15—								Per cent of increase July 15 of each specified year compared with July 15, 1913						
	1913	1924	1925	1926	1927	1928	1929	1930	1924	1925	1926	1927	1928	1929	1930
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*							
Sirloin steak..pound..	26.4	40.7	42.2	42.0	43.6	49.7	52.5	46.3	54	60	59	65	88	99	75
Round steak....do....	23.2	34.6	36.5	36.3	37.9	43.9	47.0	41.1	49	57	56	63	89	103	77
Rib roast.....do....	20.2	29.1	30.4	30.7	31.7	36.0	38.2	34.0	44	50	52	57	78	89	68
Chuck roast.....do....	16.4	21.0	22.4	22.7	23.9	28.9	31.3	26.6	28	37	38	46	76	91	62
Plate beef.....do....	12.2	13.1	14.0	14.5	15.3	19.1	21.5	18.1	7	15	19	25	57	76	48
Pork chops.....do....	21.7	30.3	39.2	41.7	34.9	37.3	39.5	36.5	40	81	92	61	72	82	68
Bacon, sliced....do....	28.0	36.4	48.7	52.3	46.6	43.9	44.3	42.3	30	74	87	66	57	58	51
Ham, sliced.....do....	28.1	44.7	54.4	60.9	54.6	53.4	56.4	53.9	59	94	117	94	90	101	92
Lamb, leg of....do....	19.7	38.4	39.3	40.3	40.3	41.1	41.1	35.7	95	99	105	105	109	109	81
Hens.....do....	21.7	35.3	36.6	39.2	35.6	36.7	39.9	34.4	63	69	81	64	69	84	59
Salmon, red, canned ..pound..	.....	31.2	31.5	38.1	32.3	35.3	31.5	31.9	.....	.....	.....	.....	.....	.....	.....
Milk, fresh.....quart..	8.8	13.5	13.8	13.8	14.0	14.1	14.3	13.9	53	57	57	59	60	62	58
Milk, evaporated ..16-ounce can..	.....	11.2	11.4	11.4	11.5	11.1	10.9	10.0	.....	.....	.....	.....	.....	.....	.....
Butter.....pound..	34.8	49.5	53.2	50.1	51.4	54.3	53.4	43.7	42	53	44	48	56	53	26
Oleomargarine (all butter substitutes) .....pound..	.....	29.2	29.9	30.2	28.0	27.2	27.2	25.6	.....	.....	.....	.....	.....	.....	.....
Cheese.....do....	21.9	34.4	36.6	35.6	36.9	38.3	37.9	34.3	57	67	63	68	75	73	57
Lard.....do....	15.9	17.1	23.5	22.9	18.8	18.4	18.3	16.3	8	48	44	18	16	15	3
Vegetable lard substitute.....pound..	.....	24.7	25.8	25.9	25.0	24.9	24.8	24.3	.....	.....	.....	.....	.....	.....	.....
Eggs, strictly fresh .....dozen..	29.9	39.4	46.2	42.1	36.9	41.6	44.1	35.1	32	55	41	23	39	47	17
Bread.....pound..	5.6	8.7	9.4	9.4	9.3	9.2	9.0	8.8	55	68	68	66	64	61	57
Flour.....do....	3.3	4.8	6.1	6.0	5.5	5.6	5.0	4.6	45	85	82	67	70	52	39
Corn meal.....do....	3.0	4.5	5.4	5.1	5.2	5.3	5.3	5.3	50	80	70	73	77	77	77
Rolled oats.....do....	.....	8.8	9.2	9.1	9.0	8.9	8.8	8.7	.....	.....	.....	.....	.....	.....	.....
Corn flakes ...8-ounce package..	.....	9.6	11.1	10.9	9.8	9.5	9.5	9.4	.....	.....	.....	.....	.....	.....	.....
Wheat cereal ..28-ounce package..	.....	24.3	24.6	25.4	25.4	25.6	25.5	25.4	.....	.....	.....	.....	.....	.....	.....
Macaroni.....pound..	.....	19.6	20.5	20.2	20.0	19.8	19.7	19.3	.....	.....	.....	.....	.....	.....	.....
Rice.....do....	8.7	10.0	11.2	11.7	10.7	10.0	9.7	9.5	15	29	34	23	15	11	9
Beans, navy....do....	.....	9.7	10.3	9.2	9.4	12.5	14.3	11.5	.....	.....	.....	.....	.....	.....	.....
Potatoes.....do....	1.9	3.3	4.4	4.1	4.2	2.3	3.9	3.3	74	132	116	121	21	105	74
Onions.....do....	.....	6.9	9.5	6.8	7.8	5.9	7.0	5.8	.....	.....	.....	.....	.....	.....	.....
Cabbage.....do....	.....	5.0	6.5	5.1	5.5	4.3	4.8	4.4	.....	.....	.....	.....	.....	.....	.....
Pork and beans .....No. 2 can..	.....	12.6	12.4	11.9	11.5	11.5	11.9	11.0	.....	.....	.....	.....	.....	.....	.....
Corn, canned....do....	.....	15.8	18.3	16.4	15.5	15.9	15.8	15.3	.....	.....	.....	.....	.....	.....	.....
Peas, canned....do....	.....	18.1	18.4	17.4	16.7	16.8	16.6	16.2	.....	.....	.....	.....	.....	.....	.....
Tomatoes, canned .....No. 2 can..	.....	13.2	13.7	11.8	12.0	11.6	13.8	12.4	.....	.....	.....	.....	.....	.....	.....
Sugar, granulated .....pound..	5.5	8.4	7.1	6.9	7.4	7.3	6.4	6.1	53	29	25	35	33	16	11
Tea.....do....	54.4	70.8	75.8	77.0	77.5	77.4	77.4	77.6	30	39	42	42	42	42	43
Coffee.....do....	29.8	42.4	50.8	51.1	47.6	49.2	49.4	40.4	42	70	71	60	65	66	36
Prunes.....do....	.....	17.4	17.3	17.2	15.7	13.8	14.7	16.4	.....	.....	.....	.....	.....	.....	.....
Raisins.....do....	.....	15.4	14.5	14.8	14.4	13.6	11.7	11.9	.....	.....	.....	.....	.....	.....	.....
Bananas.....dozen..	.....	35.9	36.2	35.2	33.4	32.1	32.1	30.6	.....	.....	.....	.....	.....	.....	.....
Oranges.....do....	.....	45.4	61.2	49.6	50.2	62.6	44.9	64.0	.....	.....	.....	.....	.....	.....	.....
All articles combined [1]	.....	.....	.....	.....	.....	.....	.....	.....	43.9	60.5	57.7	54.0	53.5	59.2	44.6

[1] Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years, from 1913 to 1929, and by months for 1928, 1929, and 1930. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, and macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 3.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, 1913 TO JULY, 1930

[Average cost in 1913=100.0]

Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913: Average for year	100.0	100.0	100.0	1928—Continued.			
1914: Average for year	106.7	103.4	97.1	October	165.9	188.9	151.1
1915: Average for year	121.6	99.6	96.1	November	165.3	184.9	152.5
1916: Average for year	126.8	108.2	103.2	December	164.2	179.1	153.5
1917: Average for year	186.5	137.0	127.6	1929: Average for year	164.1	188.4	148.6
1918: Average for year	194.3	172.8	153.4	January	164.1	180.9	151.9
1919: Average for year	198.0	184.2	176.6	February	164.1	180.3	152.6
1920: Average for year	232.1	185.7	185.1	March	164.1	182.8	152.4
1921: Average for year	179.8	158.1	149.5	April	164.1	187.5	148.9
1922: Average for year	159.3	150.3	135.9	May	163.5	191.2	147.5
1923: Average for year	156.9	149.0	147.6	June	163.0	192.4	146.8
1924: Average for year	160.4	150.2	142.8	July	163.5	195.9	146.8
1925: Average for year	176.2	163.0	147.1	August	164.7	196.0	147.1
1926: Average for year	175.5	171.3	145.5	September	165.2	194.2	148.1
1927: Average for year	170.7	169.9	148.7	October	163.5	189.2	149.3
1928: Average for year	167.2	179.2	150.0	November	163.6	184.1	147.0
January	168.0	168.3	152.2	December	162.9	181.8	144.9
February	168.0	167.8	150.7	1930:			
March	166.8	167.1	150.7	January	162.9	183.6	138.9
April	167.2	170.3	147.8	February	161.6	183.1	138.5
May	168.3	175.4	147.3	March	160.9	183.0	137.6
June	169.8	177.7	146.1	April	160.3	183.3	138.9
July	169.3	184.4	147.1	May	159.8	181.5	137.0
August	168.2	189.5	148.3	June	160.1	179.9	133.7
September	166.7	195.8	151.2	July	158.6	175.2	133.3

Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1929,[2] by months for 1929 and for January through July, 1930. These index numbers, or relative prices, are based on the year 1913 as 100, and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1929 was 196.9, which means that the average money price for the year 1929 was 96.9 per cent higher than the average money price for the year 1913. As compared with the relative price, 188.2 in 1928, the figures for 1929 show an increase of 8.7 points, but an increase of 4.6 per cent in the year.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2,

[2] For index numbers of each month, January, 1913, to December, 1928, see Bulletin No. 396, pp. 44 to 61; and Bulletin No. 496, pp. 32 to 45.

weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100 are 147.9 for June, 1930, and 144.0 for July, 1930.

The curve shown in the chart on this page pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

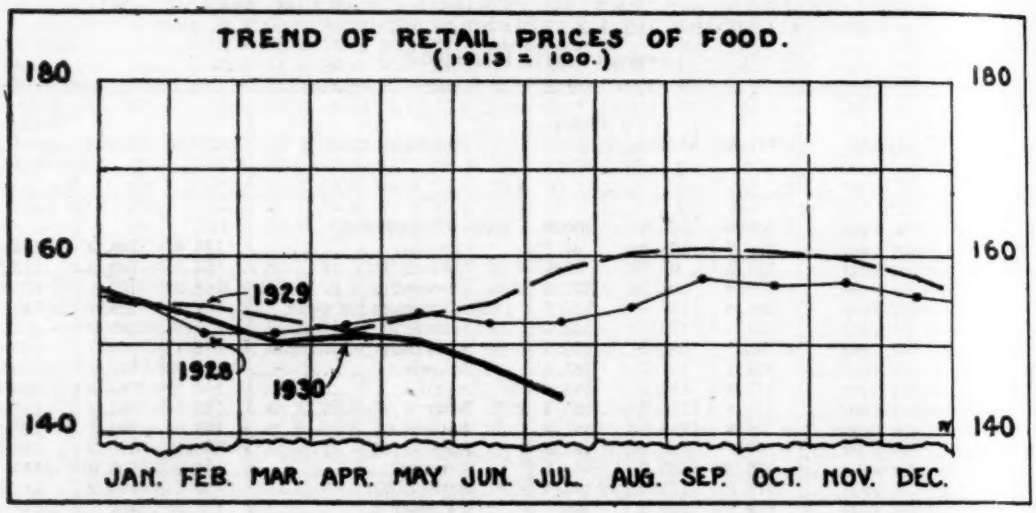


TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920 TO 1929, AND BY MONTHS FOR 1929 AND 1930

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1927	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	173.2	158.4	145.2	170.1
1928	188.2	188.3	176.8	174.4	157.0	165.7	163.0	196.7	175.6	159.6	147.5	174.2
1929	196.9	199.1	185.4	186.9	172.7	175.7	161.1	204.1	186.4	160.7	143.9	171.9
1929: January	190.6	191.0	180.8	181.3	170.2	153.8	159.3	200.0	184.0	160.7	150.7	173.8
February	188.2	188.8	178.8	179.4	167.8	157.1	158.2	199.6	186.4	160.7	152.7	172.9
March	188.6	189.2	179.3	180.0	167.8	167.6	158.9	201.9	190.1	160.7	152.5	172.9
April	192.9	194.6	183.8	184.4	170.2	176.7	160.4	203.3	196.2	159.6	145.7	172.4
May	198.4	201.3	187.9	190.0	174.4	179.5	160.7	204.8	198.1	159.6	142.3	171.9
June	201.6	205.4	189.9	191.9	176.0	179.0	162.2	205.6	193.9	159.6	140.5	171.9
July	206.7	210.8	192.9	195.6	177.7	188.1	164.1	209.7	187.3	160.7	139.4	171.5
August	206.3	210.8	191.9	194.4	176.0	192.4	165.6	211.2	185.0	160.7	140.5	171.0
September	202.8	206.7	189.4	191.9	175.2	193.8	164.4	209.7	184.0	160.7	143.1	171.9
October	198.0	199.6	186.9	187.5	173.6	185.2	161.9	204.8	180.3	161.8	145.4	171.5
November	194.1	196.4	183.3	183.8	171.1	170.5	159.3	200.4	177.0	161.8	139.7	171.0
December	192.5	194.6	181.8	183.1	170.2	163.3	157.4	198.5	174.2	161.8	134.7	170.6
1930: January	192.9	195.5	183.3	184.4	172.7	168.1	157.0	199.3	178.4	159.6	121.9	169.2
February	191.3	194.2	181.8	184.4	171.9	167.6	157.8	200.7	179.3	158.4	122.7	167.0
March	190.6	192.8	181.3	182.5	170.2	171.9	157.8	201.1	179.8	157.3	121.9	164.7
April	190.2	193.3	181.3	182.5	168.6	176.7	157.4	200.4	179.3	157.3	125.6	162.9
May	190.2	192.8	179.8	179.4	164.5	171.9	156.7	200.7	175.6	157.3	120.9	162.0
June	188.6	191.5	177.3	175.6	160.3	174.3	156.7	200.7	167.6	157.3	113.1	157.9
July	182.3	184.3	171.7	166.3	149.6	173.8	156.7	200.4	161.5	156.2	114.1	155.2

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920 TO 1929, AND BY MONTHS FOR 1929 AND 1930—Continued

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles [1]
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1928	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1929	115.8	142.0	160.7	154.5	176.7	111.5	188.2	120.0	142.6	164.8	156.7
1929: January	117.1	146.7	160.7	154.5	176.7	112.6	135.3	121.8	142.5	166.1	154.6
February	116.5	142.3	160.7	154.5	176.7	112.6	135.3	120.0	142.6	166.1	154.4
March	116.5	122.0	160.7	154.5	176.7	112.6	135.3	118.2	142.6	166.4	153.0
April	117.1	106.4	160.7	154.5	176.7	112.6	135.3	116.4	142.6	166.4	151.6
May	116.5	112.2	160.7	151.5	176.7	111.5	158.8	116.4	142.6	166.1	153.3
June	115.8	120.0	160.7	148.5	176.7	111.5	182.4	116.4	142.5	165.8	154.8
July	115.8	127.8	160.7	151.5	176.7	111.5	229.4	116.4	142.3	165.8	158.5
August	116.5	140.0	160.7	157.6	176.7	112.6	235.3	120.0	142.5	165.4	160.2
September	117.1	153.6	160.7	160.6	176.7	111.5	229.4	121.8	142.6	165.1	160.8
October	115.8	168.1	158.9	157.6	176.7	111.5	223.5	121.8	142.6	164.8	160.5
November	113.9	183.5	158.9	157.6	176.7	111.5	223.5	121.8	142.3	162.1	159.7
December	111.4	182.0	158.9	154.5	180.0	110.3	223.5	120.0	142.8	155.4	158.0
1930: January	108.9	160.6	158.9	154.5	180.0	110.3	229.4	120.0	143.4	147.0	155.4
February	108.2	136.8	157.1	154.5	176.7	110.3	229.4	118.2	143.2	143.3	153.0
March	107.0	102.3	157.1	151.5	176.7	109.2	229.4	116.4	142.8	140.6	150.1
April	106.3	100.0	157.1	148.5	176.7	110.3	241.2	114.5	142.5	138.9	151.2
May	105.7	97.7	157.1	145.5	176.7	109.2	252.9	114.5	142.5	137.2	150.1
June	105.1	97.4	157.1	145.5	176.7	109.2	247.1	110.9	143.0	136.2	147.9
July	103.2	101.7	157.1	139.4	176.7	109.2	194.1	110.9	142.6	135.6	144.0

[1] 22 articles in 1913–1920; 42 articles in 1921–1930.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES

[Exact comparison of prices in different cities can not be made for some articles, particularly meats and vegetables, owing to differences in trade practices]

Article	Atlanta, Ga.			Baltimore, Md.			Birmingham, Ala.			Boston, Mass.			Bridgeport, Conn.		
	July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak...pound..	51.2	47.0	47.8	53.7	45.3	44.0	52.3	48.9	48.3	[1]75.1	[1]72.9	[1]71.1	61.1	54.5	53.3
Round steak....do....	46.6	43.5	43.3	49.8	42.5	41.3	45.7	42.9	41.1	64.6	57.3	56.8	55.2	49.3	49.4
Rib roast.....do....	38.4	32.8	31.9	38.1	34.5	33.5	37.3	33.3	33.4	45.9	42.0	41.3	44.3	38.9	38.7
Chuck roast.....do....	31.9	27.0	25.4	31.6	27.1	25.5	30.0	28.9	28.0	36.3	33.6	31.9	37.3	31.7	30.7
Plate beef.....do....	21.0	19.8	19.1	22.9	19.7	18.3	21.1	19.6	18.4	24.2	22.6	22.0	17.4	14.6	14.1
Pork chops.....do....	35.5	34.0	33.9	41.0	37.0	36.5	35.7	34.1	33.8	42.5	39.9	40.0	42.5	39.6	39.5
Bacon, sliced....do....	40.7	39.0	37.9	41.7	38.5	38.3	43.1	39.4	39.8	43.4	40.2	40.3	48.0	47.9	47.3
Ham, sliced.....do....	57.3	52.0	52.2	58.4	55.9	55.5	54.0	54.4	54.1	60.2	57.1	57.6	59.8	55.3	55.2
Lamb, leg of.....do....	41.9	38.0	36.3	40.3	37.1	36.2	41.6	38.3	38.0	42.3	39.2	38.0	43.2	37.2	36.5
Hens.....do....	36.9	34.7	33.7	42.3	37.6	37.5	34.7	30.9	29.5	42.7	39.2	36.7	42.9	37.4	35.8
Salmon, red, canned .....do....	33.6	33.4	33.4	28.1	28.3	23.9	32.6	32.5	32.6	30.9	31.2	31.4	32.2	31.4	31.8
Milk, fresh.....quart..	16.5	16.0	16.0	14.0	14.0	14.0	16.7	17.0	17.0	15.6	15.2	14.8	16.0	16.0	16.0
Milk, evaporated .....16-ounce can..	13.2	10.8	10.9	10.4	9.6	9.6	11.9	10.6	10.5	11.3	10.7	10.7	10.8	10.2	10.3
Butter.....pound..	56.9	47.8	48.3	56.7	48.1	48.5	55.2	48.9	48.9	55.2	45.8	45.9	53.7	43.0	43.4
Oleomargarine (all butter substitutes) .....pound..	28.7	26.4	26.8	28.3	27.6	27.6	31.6	27.1	27.3	29.0	27.9	27.2	25.8	25.6	25.6
Cheese.....do....	36.4	32.3	31.0	37.0	32.5	34.0	36.7	31.4	30.5	40.1	37.8	37.5	43.5	40.6	40.5
Lard.....do....	17.9	16.3	15.6	16.7	14.8	14.6	18.3	16.3	15.7	18.1	16.7	16.7	17.3	15.8	15.5
Vegetable lard substitute.....pound..	23.2	20.3	20.1	23.3	23.0	23.3	21.4	21.5	21.3	25.5	25.7	25.6	25.4	25.2	25.0
Eggs, strictly fresh .....dozen..	41.0	33.6	36.0	42.9	32.4	34.0	43.0	32.3	35.7	62.1	47.8	53.8	56.9	47.3	49.9
Bread.....pound..	10.6	9.8	9.8	8.5	8.5	8.5	9.9	9.7	9.7	8.7	8.8	8.8	8.7	8.6	8.6
Flour.....do....	6.4	5.6	5.5	4.7	4.4	4.4	6.3	5.9	5.7	5.6	5.1	5.0	5.1	4.9	4.6
Corn meal.....do....	4.4	4.1	4.1	4.1	3.9	3.9	4.1	4.2	4.1	6.6	7.1	7.0	7.1	7.0	6.8
Rolled oats.....do....	9.5	8.9	8.9	8.1	8.2	8.1	9.5	10.0	10.0	8.8	8.3	8.3	8.5	8.5	8.4
Corn flakes .....8-ounce package..	9.7	9.7	9.7	8.9	8.8	8.8	9.8	9.6	9.6	9.3	9.1	9.3	9.3	9.2	9.2
Wheat cereal .....28-ounce package..	27.1	28.0	28.3	24.2	23.8	23.9	27.2	27.5	27.3	25.3	25.4	25.2	24.6	24.9	24.5
Macaroni.....pound..	21.5	20.6	20.3	18.7	19.0	18.9	18.3	17.4	17.7	21.4	21.7	21.4	22.2	21.1	20.9
Rice.....do....	9.6	8.2	8.1	9.1	9.3	9.1	8.9	8.8	8.9	10.5	10.4	10.3	10.0	9.4	9.4
Beans, navy.....do....	16.6	13.4	13.5	14.0	10.7	10.7	15.4	12.2	12.5	13.4	12.2	12.2	14.4	11.7	11.3
Potatoes.....do....	4.4	4.3	4.3	3.6	4.1	2.9	4.3	4.9	4.7	3.9	3.9	3.3	3.8	3.7	3.0
Onions.....do....	8.7	7.9	8.0	6.9	6.3	5.7	7.9	5.8	6.1	7.9	6.6	6.8	7.5	6.0	5.8
Cabbage.....do....	4.6	3.6	5.6	4.1	5.5	4.5	4.9	5.0	5.5	5.5	6.9	4.9	5.4	6.4	4.3
Pork and beans .....No. 2 can..	12.0	9.5	9.6	11.0	10.4	10.5	11.8	10.6	10.7	13.2	12.8	12.8	11.9	10.7	10.6
Corn, canned....do....	17.9	16.1	15.3	17.1	16.6	16.6	16.6	15.6	15.7	17.5	16.9	17.0	17.7	16.9	17.2
Peas, canned....do....	19.2	18.3	18.2	15.2	14.8	15.0	18.9	19.7	19.6	19.8	18.8	19.0	19.1	17.5	17.5
Tomatoes, canned .....No. 2 can..	13.9	11.5	11.0	12.8	10.8	10.9	13.4	11.1	11.1	13.8	14.8	14.6	14.8	13.8	13.8
Sugar, granulated .....pound..	6.8	6.6	6.4	5.5	5.2	5.2	6.6	6.3	6.3	6.2	6.1	6.1	6.4	5.9	6.1
Tea.....do....	105.3	95.9	96.1	72.8	71.1	70.8	95.6	92.7	93.1	75.7	80.3	80.1	57.2	57.1	57.1
Coffee.....do....	51.4	39.5	39.9	45.7	38.4	37.5	52.4	43.3	43.1	54.2	43.7	43.5	47.3	35.4	35.4
Prunes.....do....	15.7	19.2	18.0	12.5	15.8	14.4	17.3	20.1	20.2	14.3	16.1	16.3	15.2	17.2	17.1
Raisins.....do....	13.9	13.9	13.1	10.5	11.0	10.9	12.8	12.0	11.8	10.9	11.4	11.5	11.9	11.8	11.9
Bananas.....dozen..	27.1	28.6	27.9	23.7	23.6	23.1	37.5	35.7	35.0	38.0	36.0	34.2	35.0	31.6	31.8
Oranges.....do....	46.7	55.2	56.8	40.2	65.4	61.0	46.9	60.1	62.3	50.8	66.3	64.4	51.2	75.1	73.0

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Buffalo, N. Y.			Butte, Mont.			Charleston, S. C.			Chicago, Ill.			Cincinnati, Ohio		
	1929	1930		1929	1930		1929	1930		1929	1930		1929	1930	
	July 15,	June 15	July 15	July 15,	June 15	July 15	July 15,	June 15	July 15	July 15,	June 15	July 15	July 15,	June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	53.7	48.2	45.8	39.5	37.5	35.9	39.2	38.8	38.1	55.0	52.0	50.0	50.2	44.8	43.2
Round steak....do....	45.9	41.7	39.3	38.2	35.9	34.3	38.8	37.7	36.5	48.4	44.2	42.4	47.1	41.8	39.6
Rib roast.....do....	37.5	34.0	32.6	36.0	32.0	30.3	32.5	31.2	30.2	41.6	38.5	36.6	39.3	37.5	37.0
Chuck roast.....do....	31.6	28.6	26.3	28.6	26.9	25.1	26.6	24.1	23.8	34.5	31.3	29.3	30.1	27.4	26.5
Plate beef.....do....	20.3	17.3	16.2	18.8	17.8	15.9	20.8	19.6	19.6	20.6	19.4	18.1	23.6	20.9	20.1
Pork chops.....do....	43.5	39.4	38.5	36.8	35.8	35.8	35.2	35.2	35.2	39.2	35.3	36.4	37.6	34.7	35.0
Bacon, sliced....do....	40.9	39.5	38.8	50.0	47.3	47.3	36.9	36.8	37.5	49.7	46.8	46.3	39.7	38.7	38.7
Ham, sliced.....do....	55.3	51.9	51.5	58.3	55.7	55.7	47.1	47.5	46.9	56.1	55.9	55.9	55.6	53.1	53.1
Lamb, leg of.....do....	37.6	33.9	32.7	40.2	35.8	34.1	45.0	42.0	40.8	41.6	37.1	35.9	41.5	38.3	36.5
Hens.....do....	40.5	36.7	34.3	36.2	32.6	31.0	41.1	37.9	37.1	41.8	37.0	35.7	41.3	36.9	34.3
Salmon, red, canned .....do....	29.4	29.5	29.9	32.0	31.6	31.6	28.5	30.7	30.7	33.3	33.4	33.2	29.4	30.8	31.9
Milk, fresh.....quart..	14.0	14.0	14.0	14.0	14.0	14.0	19.0	18.3	18.3	14.0	14.0	14.0	14.0	14.0	14.0
Milk, evaporated .....16-ounce can..	10.5	9.8	9.8	10.6	10.0	9.8	10.6	10.0	10.0	10.6	10.0	9.9	10.9	10.2	10.0
Butter.....pound..	51.7	42.2	42.8	52.2	40.1	39.6	52.6	44.3	43.7	50.4	40.6	41.8	54.0	43.3	44.8
Oleomargarine (all butter substitutes) .....pound..	26.3	25.3	25.5	.....	.....	.....	28.2	27.2	27.2	26.6	25.0	24.7	27.7	26.3	26.4
Cheese.....do....	38.6	37.1	37.1	37.5	35.8	35.6	34.2	31.5	31.5	41.6	39.4	38.8	38.8	37.2	36.5
Lard.....do....	17.4	15.8	15.4	21.6	20.0	20.0	18.8	18.3	18.1	18.6	16.6	16.8	17.1	16.1	15.8
Vegetable lard substitute.....pound..	24.8	24.4	23.9	30.7	29.8	29.7	20.9	21.0	20.9	25.8	25.4	25.4	26.1	25.8	25.8
Eggs, strictly fresh .....dozen..	45.9	35.7	36.1	46.8	39.0	39.6	42.4	32.6	35.0	44.8	34.7	34.9	40.7	30.8	31.1
Bread.....pound..	8.3	8.1	8.1	9.8	9.7	9.7	11.0	10.9	10.7	9.9	9.4	9.4	8.7	8.7	8.7
Flour.....do....	4.7	4.3	4.2	5.1	4.4	4.3	6.4	6.3	6.1	4.5	4.2	4.1	5.5	5.1	5.1
Corn meal.....do....	5.3	5.0	5.0	6.4	6.4	6.2	4.0	4.1	4.1	6.6	6.8	6.8	4.6	4.8	4.8
Rolled oats.....do....	8.5	8.4	8.4	8.1	8.6	8.5	9.4	9.3	9.2	8.2	8.1	8.1	8.9	8.9	8.9
Corn flakes .....8-ounce package..	9.2	9.0	9.0	10.3	10.2	10.2	10.0	10.0	10.0	9.2	9.2	9.4	9.6	9.7	9.7
Wheat cereal .....28-ounce package..	24.9	24.6	24.5	28.0	28.3	28.3	25.3	25.2	25.2	24.8	25.4	25.3	24.9	24.9	24.9
Macaroni.....pound..	21.4	21.0	20.9	19.9	19.7	19.7	18.6	18.8	18.8	18.2	18.6	18.9	18.2	19.5	19.5
Rice.....do....	9.3	9.1	9.2	10.6	11.3	10.9	6.5	6.8	7.0	10.3	10.0	10.3	9.6	9.9	10.0
Beans, navy.....do....	14.7	10.6	10.5	13.0	11.9	11.4	11.3	13.9	13.9	14.1	11.8	11.6	13.8	10.0	10.2
Potatoes.....do....	3.7	3.9	2.6	5.4	4.0	4.2	2.6	3.5	3.1	4.0	4.5	3.5	4.1	4.6	3.9
Onions.....do....	7.8	6.5	6.6	7.7	6.8	5.4	8.1	7.0	7.1	6.4	6.2	5.7	6.3	6.0	5.5
Cabbage.....do....	5.4	6.0	4.0	5.9	7.3	5.8	5.7	4.2	6.1	5.2	6.5	4.3	4.1	5.9	4.9
Pork and beans .....No. 2 can..	10.3	9.7	9.7	13.5	12.9	12.7	11.3	9.8	9.7	12.5	11.6	11.4	11.6	11.0	11.0
Corn, canned....do....	16.1	15.2	14.9	14.8	14.3	14.3	15.2	14.8	14.4	15.8	15.1	15.1	15.7	15.9	15.8
Peas, canned.....do....	15.8	15.4	15.3	14.2	14.6	14.6	16.3	16.5	16.4	16.4	15.8	15.9	16.6	16.8	16.8
Tomatoes, canned .....No. 2 can..	13.9	13.1	13.1	12.4	13.7	13.7	11.8	10.1	10.1	14.4	14.0	14.0	14.3	13.0	13.0
Sugar, granulated .....pound..	6.1	5.8	5.7	7.6	7.1	7.1	6.3	5.9	5.8	6.2	6.2	6.2	6.6	6.5	6.4
Tea.....do....	68.3	66.5	66.8	82.6	80.8	81.1	84.0	84.9	84.9	70.0	74.4	73.8	79.3	80.9	80.9
Coffee.....do....	47.8	38.5	38.6	55.1	46.5	46.2	46.5	39.0	38.1	47.9	39.8	40.0	45.8	36.8	37.0
Prunes.....do....	14.4	17.7	17.2	14.8	17.9	17.2	12.4	14.9	15.1	17.1	17.5	17.2	15.4	17.9	17.1
Raisins.....do....	11.0	11.7	11.7	13.0	13.0	13.0	10.0	11.3	11.0	11.6	11.9	11.9	11.9	12.1	12.1
Bananas.....dozen..	39.0	39.1	38.4	[1] 13.5	[1] 12.7	[1] 12.5	25.0	27.2	27.2	38.4	38.8	38.8	37.2	37.2	37.2
Oranges.....do....	46.9	73.4	62.8	49.1	62.1	62.1	36.0	69.9	60.3	47.2	68.9	70.0	44.9	68.6	66.8

[1] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Cleveland, Ohio			Columbus, Ohio			Dallas, Tex.			Denver, Colo.			Detroit, Mich.		
	July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	52.3	44.0	43.0	50.3	47.2	45.4	48.5	47.2	46.1	46.2	39.2	38.5	54.4	47.4	45.9
Round steak....do....	46.5	39.4	38.0	46.3	42.8	40.8	46.6	45.5	43.4	42.3	36.4	35.4	46.2	38.5	38.4
Rib roast.....do....	37.0	33.0	32.2	40.0	39.2	36.7	38.9	37.0	36.1	33.3	29.9	28.8	40.5	34.3	34.6
Chuck roast....do....	33.1	28.9	26.6	33.5	31.0	29.0	31.7	29.8	29.0	28.2	25.3	24.2	33.0	27.2	27.2
Plate beef.....do....	21.5	18.6	17.7	24.3	22.8	19.6	24.7	24.1	23.1	18.5	16.5	15.3	22.0	18.1	17.4
Pork chops.....do....	41.3	36.5	37.9	36.3	35.0	33.2	37.5	35.3	34.5	36.9	34.7	34.7	43.1	37.1	37.7
Bacon, sliced....do....	41.8	40.9	41.1	44.7	43.7	43.3	43.2	40.2	40.8	42.1	40.3	40.8	44.7	42.1	42.3
Ham, sliced.....do....	57.3	53.3	53.3	53.6	52.9	52.5	59.1	55.0	55.0	56.4	53.3	52.3	62.2	55.2	56.0
Lamb, leg of....do....	39.6	34.1	33.9	46.0	44.0	41.1	46.7	40.1	41.1	37.8	35.0	33.9	41.8	34.8	36.4
Hens.....do....	40.1	34.2	33.5	40.6	37.0	33.3	34.5	32.7	30.8	33.5	29.3	28.8	41.6	36.5	35.0
Salmon, red, canned ..pound..	32.5	32.3	32.2	32.8	30.4	31.9	32.6	33.5	33.8	32.2	33.4	33.3	31.0	31.1	31.3
Milk, fresh.....quart..	13.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	12.0	11.3	11.3	14.0	13.0	13.0
Milk, evaporated ..16-ounce can.	10.9	9.8	9.8	11.0	10.2	10.2	12.9	11.7	11.5	10.1	9.9	9.9	10.6	9.8	10.0
Butter.....pound..	53.9	44.3	45.4	52.3	42.3	42.8	55.0	46.8	46.9	47.6	37.6	38.2	53.3	43.0	42.3
Oleomargarine (all butter substitutes) ..pound..	28.7	27.2	27.4	27.2	25.6	25.6	28.3	27.4	27.4	24.3	23.0	23.0	25.4	23.8	24.0
Cheese.....do....	39.8	38.9	38.4	36.5	37.2	35.8	38.3	33.1	32.2	39.1	36.3	36.0	39.4	34.7	33.4
Lard.....do....	20.0	17.5	17.3	15.5	13.9	13.9	21.1	18.4	19.5	18.5	16.1	15.6	17.8	16.1	15.7
Vegetable lard substitute.....pound..	26.7	26.2	26.1	26.4	26.4	26.7	23.1	21.4	21.4	21.4	20.2	20.1	25.9	25.7	26.2
Eggs, strictly fresh ..dozen..	45.8	33.6	35.2	38.9	27.3	27.8	38.8	29.8	32.0	37.0	28.6	28.9	45.2	32.3	32.8
Bread.....pound..	7.8	7.8	7.8	7.7	7.7	7.7	9.1	7.7	7.7	7.6	7.6	7.6	8.1	8.0	8.0
Flour.....do....	5.0	4.8	4.7	4.8	4.5	4.4	4.9	4.9	4.8	3.7	3.8	3.6	4.7	4.4	4.4
Corn meal.....do....	5.7	5.0	5.3	4.2	4.2	4.0	4.4	4.6	4.3	4.6	4.6	4.6	6.2	5.8	6.1
Rolled oats.....do....	8.9	9.1	9.1	8.9	9.1	9.1	10.0	9.8	9.8	7.6	7.5	7.4	9.1	8.4	8.6
Corn flakes ..8-ounce package..	9.8	9.9	9.9	10.0	9.6	9.6	9.8	9.6	9.6	10.1	9.8	9.7	9.7	9.5	9.5
Wheat cereal ..28-ounce package..	25.8	25.3	25.3	26.1	26.1	25.4	27.3	27.0	26.9	24.6	24.7	24.5	26.3	26.9	27.2
Macaroni.....pound..	20.9	18.8	18.8	20.0	19.6	19.8	21.4	20.5	20.4	19.2	19.5	19.4	20.6	19.0	18.8
Rice.....do....	10.2	10.0	9.8	11.2	11.0	10.8	11.4	10.3	10.8	8.9	8.8	8.8	11.4	10.0	10.4
Beans, navy....do....	14.5	11.0	10.8	14.4	10.5	9.9	15.6	13.9	13.9	13.6	10.4	10.1	13.6	10.5	10.4
Potatoes.....do....	3.9	4.5	3.4	3.5	4.6	3.3	4.7	5.0	5.1	4.2	4.7	3.7	3.7	4.1	2.6
Onions.....do....	6.7	5.8	5.9	8.7	6.4	6.5	7.2	6.5	6.4	6.4	5.4	6.3	6.8	5.6	5.5
Cabbage.....do....	5.4	6.1	5.4	4.7	7.0	5.8	5.5	5.7	5.5	4.5	5.1	3.7	6.1	5.6	4.2
Pork and beans ..No. 2 can..	12.0	11.3	11.2	11.4	10.9	10.9	13.3	10.8	10.9	11.6	10.5	10.8	11.9	10.4	10.4
Corn, canned....do....	16.5	16.4	16.3	13.5	15.1	15.1	18.0	16.9	17.2	14.5	14.4	14.4	15.6	14.9	15.1
Peas, canned....do....	17.3	16.8	16.8	15.3	15.7	15.2	21.8	21.5	21.9	15.2	15.3	15.2	16.2	15.3	15.4
Tomatoes, canned ..No. 2 can..	14.5	13.9	13.8	13.8	13.6	13.5	13.8	13.0	13.0	12.6	13.6	13.8	13.8	12.5	12.1
Sugar, granulated ..pound..	6.9	6.7	6.7	6.9	6.9	6.8	7.0	6.6	6.5	7.1	6.5	6.6	6.7	6.2	6.2
Tea.....do....	83.0	83.8	83.6	87.8	88.7	88.7	103.8	99.9	97.8	69.5	72.0	72.4	72.6	78.1	80.0
Coffee.....do....	52.2	42.2	41.7	49.3	42.4	41.6	58.8	49.3	49.3	49.5	43.8	43.1	48.9	38.6	39.9
Prunes.....do....	17.2	17.6	16.6	16.7	18.5	18.9	18.1	19.8	18.7	16.3	16.9	16.4	16.4	16.9	16.8
Raisins.....do....	11.5	12.0	12.2	11.4	12.0	12.2	13.0	13.0	13.5	11.4	11.9	11.6	11.9	12.2	12.2
Bananas.....dozen...	[1] 9.5	[1] 8.9	[1] 9.0	37.5	36.3	36.3	41.0	33.3	30.0	[1] 10.2	[1] 9.2	[1] 9.5	34.0	31.4	32.5
Oranges.....do....	53.4	71.1	67.7	40.8	69.2	71.8	51.9	59.4	61.7	37.3	61.5	59.3	43.9	63.1	64.4

[1] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Fall River, Mass.			Houston, Tex.			Indianapolis, Ind.			Jacksonville, Fla.			Kansas City, Mo.		
	July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak[1]—pound	[2]75.3	[2]66.7	[2]65.6	42.3	42.0	38.5	51.1	46.1	45.1	40.0	40.5	40.9	50.7	46.9	44.1
Round steak—do	58.0	53.6	52.3	42.3	40.5	37.5	49.3	44.4	42.4	36.5	36.4	35.7	46.3	42.0	39.4
Rib roast—do	40.1	37.5	36.4	31.8	34.0	32.0	36.3	33.5	32.5	32.0	30.9	31.2	36.2	33.1	30.4
Chuck roast—do	33.4	29.7	27.9	25.6	26.0	24.4	32.9	29.8	28.7	26.0	24.8	24.5	29.4	27.3	24.9
Plate beef—do	18.8	16.2	15.8	23.5	23.1	20.9	21.7	19.5	18.6	18.0	18.1	16.5	21.1	19.2	16.5
Pork chops—do	40.3	37.7	38.2	35.3	33.8	33.5	38.4	35.6	35.4	33.0	33.6	33.5	37.3	34.9	34.5
Bacon, sliced—do	39.3	35.4	35.4	40.9	38.5	37.4	41.2	40.8	41.3	38.3	36.0	35.8	42.7	40.9	40.7
Ham, sliced—do	56.9	54.0	55.0	51.4	51.0	50.0	57.7	54.6	53.9	50.0	50.5	50.5	53.6	51.3	50.4
Lamb, leg of—do	44.2	38.7	37.6	33.3	35.0	35.8	45.0	38.1	37.8	40.0	37.5	36.2	36.6	34.8	33.5
Hens—do	46.7	41.5	38.9	39.1	34.3	32.8	42.6	38.2	36.7	36.3	32.4	31.4	35.6	32.8	31.6
Salmon, red, canned—pound	33.0	32.1	32.8	29.3	30.2	30.2	32.0	32.4	32.4	30.0	30.9	31.0	34.5	34.9	34.7
Milk, fresh—quart	15.0	15.0	15.0	15.0	15.0	15.0	12.0	12.0	12.0	20.3	18.0	18.0	13.0	13.0	13.0
Milk, evaporated—16-ounce can	11.9	10.9	10.9	10.3	9.6	9.9	10.2	9.9	9.9	10.9	10.3	10.0	10.8	10.2	10.0
Butter—pound	55.1	43.3	43.3	52.3	43.2	45.8	53.3	43.5	43.7	55.5	44.5	45.6	49.4	40.0	40.5
Oleomargarine (all butter substitutes)—pound	26.3	26.2	26.2	24.9	22.9	23.2	28.2	26.9	26.7	28.7	23.8	24.3	25.0	22.8	22.1
Cheese—do	41.3	38.8	38.8	32.2	28.5	26.9	40.8	38.5	37.7	34.1	30.8	28.8	36.5	32.2	32.8
Lard—do	17.5	15.7	15.5	20.8	18.4	17.8	16.3	14.9	14.6	19.3	17.3	17.3	17.7	16.3	15.6
Vegetable lard substitute—pound	26.6	26.2	25.8	16.6	15.9	15.7	26.9	26.8	26.8	22.1	20.2	20.3	25.6	25.6	25.3
Eggs, strictly fresh—dozen	57.7	44.1	47.8	39.3	29.3	31.3	37.9	28.2	28.8	42.9	31.9	34.8	39.3	29.8	29.1
Bread—pound	8.2	8.5	8.5	8.4	8.4	8.2	8.0	8.0	8.0	10.0	10.2	10.2	9.2	8.7	8.5
Flour—do	5.5	5.3	5.2	4.7	4.5	4.4	5.1	4.8	4.6	5.7	5.4	5.3	4.7	4.6	4.4
Corn meal—do	6.5	6.3	6.1	4.2	4.4	4.2	4.3	4.5	4.5	4.3	4.0	3.9	5.3	5.3	5.3
Rolled oats—do	9.4	9.5	9.5	8.2	8.0	8.0	8.7	8.5	8.5	9.4	9.3	9.2	9.1	8.9	8.9
Corn flakes—8-ounce package	9.8	9.5	9.5	9.1	9.1	9.1	9.5	9.4	9.4	9.8	9.6	9.6	9.6	9.6	9.6
Wheat cereal—28-ounce package	24.4	24.8	24.8	25.3	25.2	24.5	25.3	26.1	26.6	25.2	26.3	26.5	26.8	27.0	27.0
Macaroni—pound	23.8	24.7	24.0	18.1	17.9	17.8	18.3	19.2	19.1	19.1	19.1	19.3	19.6	20.4	20.0
Rice—do	10.7	10.1	9.8	7.2	7.4	7.4	10.4	11.0	11.0	7.6	8.4	8.4	9.7	9.1	9.2
Beans, navy—do	13.6	12.5	12.9	15.4	12.8	13.1	14.5	10.1	10.0	14.8	12.3	12.6	14.6	10.8	10.7
Potatoes—do	4.1	3.7	3.0	4.9	5.0	4.7	4.0	4.5	3.6	4.0	4.3	4.2	3.4	4.1	2.2
Onions—do	7.8	6.6	6.1	5.8	4.7	4.8	7.4	6.5	6.3	8.4	6.4	5.9	7.7	6.8	5.4
Cabbage—do	4.5	6.2	2.7	6.3	3.8	4.3	4.5	6.0	4.2	5.0	4.8	5.0	4.4	3.2	2.1
Pork and beans—No. 2 can	12.6	11.8	11.8	10.6	9.8	9.6	11.3	11.2	11.2	10.6	9.9	9.9	12.5	11.9	11.7
Corn, canned—do	16.0	16.0	15.8	14.0	13.7	13.7	14.0	14.0	14.0	17.0	16.3	16.0	15.1	14.9	14.8
Peas, canned—do	18.2	17.5	17.4	15.7	14.5	14.7	14.7	15.2	15.2	17.8	17.9	17.3	15.9	15.9	16.0
Tomatoes, canned—No. 2 can	13.9	12.5	12.2	11.8	10.1	10.1	14.2	13.5	13.5	11.3	9.8	9.7	14.4	12.4	12.8
Sugar, granulated—pound	6.1	6.1	6.0	6.5	6.0	6.0	6.9	6.5	6.5	6.7	6.2	6.3	7.0	6.7	6.5
Tea—do	59.1	60.0	60.0	86.8	88.6	85.9	90.3	92.6	91.3	97.6	91.0	90.8	89.0	89.2	88.8
Coffee—do	50.0	42.8	42.8	44.6	34.4	33.1	48.2	39.9	40.5	47.5	39.5	40.3	52.3	42.3	42.1
Prunes—do	13.6	15.3	14.8	14.5	17.0	16.7	16.0	19.5	19.2	14.2	18.7	16.7	15.4	18.1	18.2
Raisins—do	11.6	12.8	12.8	10.5	10.1	10.2	13.8	13.4	13.2	11.7	12.0	11.6	12.7	13.4	13.1
Bananas—dozen	[3]8.6	[3]8.5	[3]8.2	26.1	25.4	25.0	31.7	30.6	30.6	26.4	27.8	25.0	[3]10.1	[3]9.5	[3]9.4
Oranges—do	42.4	68.8	64.3	34.0	55.6	54.1	47.6	65.3	65.7	46.7	79.0	86.8	39.5	68.5	62.4

[3] Per pound.

[2] The steak for which prices are quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Little Rock, Ark.			Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.			Memphis, Tenn.		
	1929	1930		1929	1930		1929	1930		1929	1930		1929	1930	
	July 15	June 15	July 15	July 15	June 15	July 15	July 15	June 15	July 15	July 15	June 15	July 15	July 15	June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak...pound..	49.5	45.5	42.1	45.7	44.9	41.6	50.0	43.6	41.4	[1]68.2	[1]62.7	[1]62.2	49.0	44.4	41.3
Round steak...do....	45.0	41.6	39.1	38.1	37.8	36.4	45.0	38.9	35.7	55.5	51.6	51.3	45.7	42.2	39.1
Rib roast...do....	39.2	35.4	33.5	35.1	35.3	33.2	37.5	32.5	30.5	36.4	34.7	34.2	34.8	32.6	30.6
Chuck roast...do....	31.7	28.7	28.1	25.6	25.7	24.1	29.1	26.1	23.9	31.5	30.0	28.6	30.1	26.9	24.3
Plate beef...do....	23.6	22.4	20.8	16.6	16.8	15.5	23.6	21.5	19.9	24.7	21.1	20.5	22.6	20.2	18.6
Pork chops...do....	34.5	34.9	34.0	44.6	42.3	40.5	36.2	31.8	32.8	38.4	36.5	36.1	35.5	33.3	31.1
Bacon, sliced...do....	45.4	41.5	41.3	51.7	47.0	45.9	45.1	41.1	42.0	37.4	37.5	37.7	36.2	34.6	34.6
Ham, sliced...do....	54.5	50.2	50.6	69.1	67.8	66.4	52.3	49.5	50.5	49.4	47.3	47.0	55.4	52.9	53.6
Lamb, leg of...do....	41.4	38.6	37.9	38.8	32.9	30.7	38.3	37.7	36.7	40.5	36.8	36.2	38.5	35.5	36.1
Hens...do....	31.8	29.8	28.8	46.5	41.6	39.0	39.1	36.1	35.4	44.0	41.2	40.1	34.5	30.7	29.2
Salmon, red, canned ...pound..	30.5	31.7	32.5	29.6	30.7	30.4	29.8	30.0	30.5	30.1	31.3	31.5	35.6	33.5	33.5
Milk, fresh...quart..	15.0	14.0	14.3	15.0	15.0	14.0	13.0	12.0	12.0	14.7	15.0	15.0	15.0	15.0	15.0
Milk, evaporated ...16-ounce can..	11.6	10.3	10.0	9.9	9.4	9.2	11.5	10.5	10.5	12.0	11.2	11.0	11.1	10.0	9.9
Butter...pound..	53.9	46.6	46.9	54.3	42.1	41.9	54.0	43.2	44.1	54.4	44.7	44.7	53.4	44.6	45.2
Oleomargarine (all butter substitutes) ...pound..	26.9	24.5	24.5	25.3	23.8	24.3	25.8	26.1	26.1	27.1	26.3	24.9	25.6	22.1	22.8
Cheese...do....	36.5	33.2	33.2	38.4	35.7	34.4	37.3	34.4	34.5	38.2	35.7	35.0	34.5	31.1	29.9
Lard...do....	19.5	18.2	17.5	19.5	17.0	16.9	17.3	16.0	15.9	17.7	16.4	16.2	15.7	14.5	14.3
Vegetable lard substitute...pound..	20.3	21.1	20.1	24.6	23.1	23.4	26.3	26.2	26.2	26.4	26.1	25.7	22.1	21.8	21.9
Eggs, strictly fresh ...dozen..	38.1	27.9	32.3	46.9	32.0	35.9	39.3	28.5	28.2	56.3	41.3	46.9	39.5	29.6	31.5
Bread...pound..	9.6	9.4	9.4	8.6	8.6	8.6	9.4	8.6	8.6	8.1	8.1	7.8	9.3	9.0	9.0
Flour...do....	5.8	5.7	5.6	4.8	4.6	4.3	5.9	5.1	4.8	5.0	4.9	4.7	5.8	5.6	5.3
Corn meal...do....	4.2	4.3	4.2	5.8	5.7	5.7	4.1	4.0	4.0	5.3	5.4	5.5	4.1	4.1	4.0
Rolled oats...do....	10.1	10.2	10.3	10.0	9.5	9.5	8.5	9.0	8.9	8.4	8.0	8.2	9.0	8.7	8.7
Corn flakes ...8-ounce package..	9.8	9.8	9.8	9.4	9.3	9.2	9.5	9.3	9.3	9.0	9.2	9.1	9.7	9.8	9.7
Wheat cereal ...28-ounce package..	27.3	27.0	27.2	25.0	24.9	24.9	27.2	27.6	26.7	25.6	25.6	25.6	26.0	26.6	26.7
Macaroni...pound..	20.2	20.5	20.5	17.8	17.5	17.5	18.6	18.2	18.2	23.1	23.7	23.1	19.5	19.6	19.7
Rice...do....	8.2	8.2	8.2	9.7	9.4	9.4	10.3	10.2	10.1	8.6	9.3	9.1	8.4	8.5	8.4
Beans, navy...do....	14.8	13.8	13.3	13.4	12.0	12.2	14.5	10.4	10.2	13.7	11.7	11.3	15.0	11.8	12.2
Potatoes...do....	2.8	3.3	3.4	3.4	3.5	3.5	3.0	4.5	2.8	3.9	3.5	2.8	4.3	4.5	4.0
Onions...do....	7.0	6.2	6.6	4.8	4.4	4.3	5.3	6.0	5.3	7.9	6.7	6.7	5.5	5.1	5.5
Cabbage...do....	5.3	4.9	4.5	4.0	3.8	3.4	4.4	5.3	4.4	5.5	7.8	4.7	4.9	4.4	4.0
Pork and beans ...No. 2 can..	12.3	10.9	10.7	11.7	10.6	10.6	11.1	10.2	10.2	13.7	14.1	14.0	11.9	10.9	11.1
Corn, canned...do....	16.0	17.0	17.0	15.9	14.2	14.5	15.0	14.9	14.9	16.4	15.9	15.9	14.7	14.5	14.3
Peas, canned...do....	18.2	19.4	19.4	16.9	15.4	14.9	15.1	15.0	15.0	17.6	17.6	17.7	15.7	15.7	15.6
Tomatoes, canned ...No. 2 can..	13.7	13.2	12.6	[4]15.6	[4]14.3	[4]14.3	14.1	12.2	12.0	14.3	12.8	12.9	12.7	10.7	10.6
Sugar, granulated ...pound..	7.1	7.0	7.1	6.0	5.8	5.8	7.0	6.8	6.7	6.7	6.3	6.3	6.7	6.2	6.1
Tea...do....	103.1	105.4	103.6	73.4	73.3	72.8	92.0	90.8	90.0	63.4	62.4	62.4	95.6	94.5	94.5
Coffee...do....	53.8	45.6	45.6	53.5	43.8	43.2	48.8	43.5	42.7	50.0	40.9	40.5	48.8	42.7	42.9
Prunes...do....	16.1	19.6	18.8	14.4	13.7	13.7	14.7	20.9	21.3	13.8	15.0	14.3	14.5	15.8	16.0
Raisins...do....	14.5	13.7	13.7	10.6	9.9	9.9	12.0	12.8	13.1	11.1	11.6	11.6	12.3	13.8	13.8
Bananas...dozen..	[2]8.6	[2]5.7	[2]5.7	[2]8.6	[2]7.4	[2]6.8	[2]9.9	[2]9.1	[2]8.7	[2]7.9	[2]6.8	[2]6.7	[2]7.8	[2]7.6	[2]7.6
Oranges...do....	44.9	66.5	59.0	45.9	46.6	48.9	40.9	69.2	60.9	46.5	71.1	69.4	43.6	70.3	61.2

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.
[2] Per pound.
[4] No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Milwaukee, Wis.			Minneapolis, Minn.			Mobile, Ala.			Newark, N. J.			New Haven, Conn.		
	July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts
Sirloin steak..pound..	50.7	43.7	42.7	45.4	42.6	42.7	46.0	44.2	43.7	57.4	50.9	50.8	64.5	59.1	59.1
Round steak....do....	45.7	39.8	38.9	41.3	38.8	37.8	44.1	42.6	40.9	54.2	47.3	47.5	55.1	50.7	49.1
Rib roast.....do....	34.8	32.0	30.1	36.1	34.1	33.5	37.3	34.2	33.4	42.3	37.5	35.5	43.9	40.5	40.5
Chuck roast....do....	33.4	28.7	27.3	31.4	30.0	27.3	29.4	28.1	27.6	34.1	27.6	26.3	36.1	31.4	30.1
Plate beef.....do....	20.9	18.2	17.2	19.7	18.8	16.5	23.8	20.3	20.6	20.0	18.1	16.8	19.6	18.8	18.5
Pork chops.....do....	39.4	35.6	37.2	39.2	36.3	36.1	36.0	33.7	34.2	41.3	38.1	41.0	40.9	38.7	39.5
Bacon, sliced....do....	44.1	43.8	43.1	47.3	46.1	45.5	40.0	37.6	36.0	43.3	43.5	43.8	45.5	44.0	43.9
Ham, sliced.....do....	50.6	48.7	48.9	54.7	52.1	51.5	51.1	51.0	51.0	58.5	53.3	55.1	61.1	60.0	59.6
Lamb, leg of....do....	42.1	37.7	36.3	37.7	33.3	32.8	43.0	40.8	41.7	42.9	36.9	35.9	45.0	37.6	36.8
Hens.....do....	37.4	28.8	28.8	35.6	31.1	30.5	35.0	33.3	32.3	40.9	37.3	35.1	44.4	40.4	39.4
Salmon, red, canned .....pound..	34.8	32.9	32.5	35.3	34.8	35.1	29.1	30.1	29.1	28.8	29.4	29.3	31.5	30.3	30.7
Milk, fresh.....quart..	11.0	11.0	11.0	12.0	11.0	11.0	18.0	18.0	18.0	16.0	15.5	15.5	16.0	16.0	16.0
Milk, evaporated .....16-ounce can..	10.8	10.1	10.1	11.5	10.7	10.6	10.6	9.7	9.5	10.5	9.8	9.7	11.6	10.2	10.0
Butter.....pound..	49.9	40.3	41.7	49.7	39.3	40.9	54.9	44.4	44.7	54.7	43.3	44.3	54.9	45.1	45.0
Oleomargarine (all butter substitutes) .....pound..	26.9	25.1	25.5	25.5	25.0	24.8	28.6	24.9	24.5	30.2	29.3	29.3	29.0	25.9	26.0
Cheese.....do....	36.9	33.6	32.8	37.4	32.5	32.1	35.0	30.5	30.7	41.8	38.6	38.6	41.8	40.1	39.4
Lard.....do....	18.3	16.9	16.8	19.1	17.4	16.8	18.3	16.3	16.3	18.6	17.6	17.1	18.9	17.8	17.3
Vegetable lard substitute.....pound..	26.8	26.3	26.3	26.6	26.4	26.3	19.4	18.6	18.6	25.5	25.0	25.3	25.4	25.6	25.4
Eggs, strictly fresh .....dozen..	38.3	27.7	28.8	36.8	27.3	27.3	38.8	28.3	32.5	50.8	43.9	44.6	58.5	46.2	49.5
Bread.....pound..	8.7	8.1	8.1	9.0	8.8	8.8	10.1	9.9	9.9	8.8	8.9	8.9	8.8	8.5	8.5
Flour.....do....	4.4	4.1	3.9	4.7	4.3	4.1	5.7	5.3	5.3	5.0	4.8	4.8	5.0	4.8	4.6
Corn meal.....do....	6.3	6.3	6.4	5.4	5.7	5.6	3.9	3.9	3.8	6.7	6.6	6.5	6.9	6.5	6.2
Rolled oats.....do....	8.1	8.0	8.0	7.9	8.0	7.8	8.3	7.9	7.9	8.6	8.5	8.6	9.2	8.7	8.9
Corn flakes ...8-ounce package..	9.4	9.4	9.3	9.7	9.3	9.3	9.0	8.8	8.7	8.9	8.8	8.8	9.9	10.0	10.1
Wheat cereal ..28-ounce package..	24.7	24.5	24.5	25.5	24.9	24.9	24.2	24.3	24.3	26.5	25.4	25.1	24.4	24.8	24.8
Macaroni.....pound..	17.6	17.1	17.0	17.5	17.7	17.5	21.1	20.1	19.7	21.5	21.3	21.3	22.0	21.1	20.2
Rice.....do....	10.0	9.8	9.7	10.1	9.6	9.4	7.7	7.8	7.9	9.3	9.3	9.0	10.2	10.2	10.4
Beans, navy....do....	14.0	10.3	10.6	14.6	11.7	11.8	14.5	12.4	12.3	14.5	12.6	12.1	14.3	11.1	11.0
Potatoes.....do....	4.2	4.3	2.9	3.0	4.2	2.3	3.9	4.2	3.9	4.0	4.4	3.3	3.7	3.7	3.1
Onions.....do....	7.0	5.9	5.5	8.1	6.1	6.2	5.9	5.3	5.4	7.6	6.0	6.5	7.8	5.9	6.2
Cabbage.....do....	5.7	5.8	4.3	3.8	5.7	3.0	4.8	4.7	4.4	4.8	6.3	3.8	5.3	7.4	5.3
Pork and beans .....No. 2 can..	11.4	10.2	10.3	12.0	11.6	11.8	10.8	9.5	9.4	10.8	10.3	10.7	12.3	11.5	11.6
Corn, canned....do....	16.3	15.5	15.5	15.1	13.5	14.1	14.3	14.3	14.5	16.4	14.8	14.4	18.3	18.5	18.0
Peas, canned....do....	15.9	16.0	15.9	15.3	14.1	14.5	15.1	15.0	14.6	17.1	15.9	15.8	20.7	19.9	19.7
Tomatoes, canned .....No. 2 can..	14.6	14.0	14.0	14.3	13.7	13.9	12.2	10.6	10.4	12.4	11.4	11.4	14.8	14.0	14.0
Sugar, granulated .....pound..	6.2	6.1	6.0	6.3	6.1	6.0	6.1	6.1	6.0	6.1	5.9	5.7	6.4	6.0	5.9
Tea.....do....	69.0	67.2	68.2	68.1	70.2	70.2	80.1	79.1	79.1	57.3	58.2	59.3	59.9	61.3	60.9
Coffee.....do....	46.5	37.6	37.8	52.8	43.3	43.7	50.1	39.9	39.9	48.3	39.2	39.7	51.6	42.2	42.2
Prunes.....do....	15.1	16.7	16.3	14.8	17.2	16.2	12.9	17.6	17.0	14.0	16.2	16.6	14.8	16.2	15.4
Raisins.....do....	12.8	12.3	12.2	11.9	12.5	12.7	9.6	11.6	11.5	11.3	11.4	11.4	12.4	11.8	12.3
Bananas.....dozen..	[1] 9.2	[1] 9.0	[1] 8.7	[1] 9.9	[1] 9.5	[1] 9.4	20.8	18.6	17.9	37.5	37.5	37.5	33.5	33.7	32.4
Oranges.....do....	43.1	67.6	60.4	38.1	64.7	63.3	34.9	53.9	49.1	51.2	73.4	67.7	53.0	78.8	75.5

[1] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	New Orleans, La.			New York, N. Y.			Norfolk, Va.			Omaha, Nebr.			Peoria, Ill.		
	1929	1930		1929	1930		1929	1930		1929	1930		1929	1930	
	July 15,	June 15	July 15	July 15,	June 15	July 15	July 15,	June 15	July 15	July 15,	June 15	July 15	July 15,	June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak...pound	46.8	42.4	40.5	56.7	50.8	49.5	50.0	44.4	43.9	48.8	43.9	40.6	44.1	40.0	37.7
Round steak....do	41.9	38.2	36.1	55.0	48.4	47.8	43.6	39.3	38.8	46.8	42.2	38.9	43.9	39.5	37.3
Rib roast.....do	39.4	34.0	32.3	44.8	41.4	40.3	40.0	34.7	34.7	34.0	31.6	29.8	32.2	30.1	28.5
Chuck roast.....do	27.5	25.8	24.3	32.6	29.4	28.0	30.0	25.7	26.4	31.3	27.4	24.9	29.1	25.8	24.0
Plate beef.....do	22.9	19.9	19.0	26.0	24.0	22.8	22.6	20.9	20.1	19.9	17.9	15.5	20.2	17.8	15.7
Pork chops.....do	38.9	35.1	34.9	42.9	39.1	40.6	36.9	33.7	33.7	36.5	33.8	31.1	34.8	33.2	31.8
Bacon, sliced....do	44.1	42.3	40.7	46.5	45.1	45.0	42.4	40.9	41.0	45.5	44.7	44.2	43.6	42.1	42.1
Ham, sliced.....do	53.3	50.9	50.6	60.8	55.7	58.2	45.9	44.4	44.8	54.4	51.0	51.0	50.5	49.5	48.2
Lamb, leg of....do	40.1	36.3	36.3	41.4	35.3	34.5	44.2	37.0	37.0	38.8	34.4	32.2	45.0	36.3	34.5
Hens.....do	39.5	34.0	33.4	41.6	38.6	36.0	38.9	35.3	34.9	34.2	30.8	30.1	37.6	31.8	30.3
Salmon, red, canned .....pound	35.1	36.5	36.6	31.0	30.7	30.8	32.6	33.6	33.6	33.9	33.9	33.9	32.7	33.4	32.9
Milk, fresh.....quart	14.0	14.0	14.0	16.0	15.0	15.0	18.0	18.0	18.0	11.3	11.0	11.0	13.0	13.0	13.0
Milk, evaporated .....16-ounce can	10.3	9.8	9.6	10.4	9.5	9.5	10.8	9.9	9.9	11.1	10.1	10.0	10.5	9.7	9.7
Butter.....pound	55.5	45.0	44.6	53.8	42.6	43.9	57.8	47.2	46.8	48.8	38.9	38.8	48.7	38.6	40.2
Oleomargarine (all butter substitutes) .....pound	28.3	26.4	26.5	28.1	26.9	26.7	26.0	25.6	26.0	26.0	25.9	25.5	27.6	25.9	25.8
Cheese.....do	37.0	32.0	30.5	40.7	38.5	38.5	35.1	32.6	30.6	35.0	31.8	31.3	36.4	32.4	32.0
Lard.....do	18.5	16.5	15.9	19.6	17.4	17.1	17.9	15.6	15.6	19.0	17.4	17.2	18.2	15.9	16.1
Vegetable lard substitute.....pound	19.7	19.8	20.3	25.9	25.2	25.2	21.8	22.1	21.2	25.6	26.3	26.4	27.8	27.1	27.1
Eggs, strictly fresh .....dozen	40.5	31.5	33.3	53.1	43.9	43.8	44.3	32.8	33.6	36.0	25.9	27.1	35.8	26.7	27.2
Bread.....pound	8.7	8.8	8.5	8.6	8.7	8.7	9.4	8.8	8.8	9.1	9.0	8.9	10.0	10.0	10.0
Flour.....do	6.5	6.1	6.0	5.0	4.6	4.6	5.2	4.9	4.9	4.1	4.1	4.0	4.6	4.4	4.3
Corn meal.....do	4.1	3.9	3.9	6.8	6.6	6.5	4.7	4.4	4.5	4.6	5.1	5.1	5.1	4.7	4.7
Rolled oats.....do	8.5	8.2	8.1	8.6	8.3	8.4	8.7	8.3	8.1	9.9	9.9	10.0	8.6	8.5	8.5
Corn flakes ....8-ounce package	9.5	9.2	9.1	9.0	8.8	8.7	9.7	9.5	9.5	9.8	9.7	9.7	9.5	9.5	9.5
Wheat cereal ...28-ounce package	24.8	24.3	24.2	24.1	23.6	23.6	24.9	24.4	24.2	27.4	27.7	27.6	25.8	25.3	25.3
Macaroni.....pound	10.7	10.2	10.6	20.5	20.2	19.7	19.3	19.1	18.5	21.4	20.7	20.7	18.7	18.7	18.7
Rice.....do	8.4	8.6	8.5	9.6	9.3	9.2	10.4	10.0	10.0	10.2	10.2	10.3	9.3	9.1	9.2
Beans, navy.....do	13.6	10.8	10.7	15.1	13.9	13.7	13.9	10.5	10.2	14.2	10.5	10.4	14.6	11.6	10.5
Potatoes.....do	4.3	4.0	3.9	4.1	4.6	3.8	3.9	4.7	3.4	3.0	4.3	2.6	2.7	4.3	3.0
Onions.....do	4.5	4.4	4.4	7.5	6.3	6.0	7.7	5.9	5.8	7.5	6.5	6.1	8.1	7.0	6.8
Cabbage.....do	4.9	4.4	4.4	5.2	6.5	4.5	4.3	5.3	4.5	2.6	5.5	2.9	4.2	6.6	4.0
Pork and beans .....No. 2 can	10.9	9.9	10.0	11.7	10.8	10.7	10.7	9.6	9.6	13.2	12.7	12.7	10.8	11.3	11.2
Corn, canned....do	15.1	14.8	14.1	15.1	15.0	15.3	15.2	15.2	14.3	15.4	15.5	15.6	14.0	13.9	13.6
Peas, canned....do	15.9	15.8	15.5	15.2	15.1	15.0	17.7	15.8	15.5	14.9	14.7	14.7	17.2	16.8	16.8
Tomatoes, canned .....No. 2 can	13.3	10.8	10.7	13.1	11.3	11.2	13.0	9.9	9.6	14.7	14.3	14.2	14.4	13.5	13.8
Sugar, granulated .....pound	5.9	5.2	5.3	5.7	5.5	5.4	6.3	6.1	6.2	6.5	6.4	6.3	6.8	6.8	6.8
Tea.....do	82.2	80.3	80.2	67.4	65.8	66.8	93.1	92.5	92.1	80.0	78.6	78.6	64.3	65.0	65.2
Coffee.....do	35.9	30.9	30.9	45.0	37.4	37.0	49.8	39.6	38.3	53.6	44.7	43.7	48.1	40.7	40.7
Prunes.....do	14.3	15.9	15.1	13.7	15.3	14.8	14.0	16.6	16.2	15.0	18.5	17.7	16.2	18.2	17.2
Raisins.....do	10.1	10.6	10.8	11.7	12.3	12.0	12.1	11.6	11.6	13.6	12.9	13.0	12.7	13.2	12.6
Bananas.....dozen	16.0	17.5	16.7	35.9	34.1	33.5	33.2	29.3	30.7	[1]10.3	[1]9.8	[1]9.8	[1]9.4	[1]8.3	[1]8.4
Oranges.....do	44.3	68.9	66.3	57.9	73.8	68.9	51.9	82.9	73.0	36.8	61.0	61.4	39.6	58.8	58.1

[1] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Philadelphia, Pa.			Pittsburgh, Pa.			Portland, Me.			Portland, Oreg.			Providence, R. I.		
	July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound	[1] 69.2	[1] 62.0	[1] 60.7	58.9	53.0	50.8	[1] 77.7	[1] 68.8	[1] 67.8	39.4	37.6	35.8	[1] 82.5	[1] 80.5	[1] 77.5
Round steak....do	57.0	47.8	46.4	50.6	44.8	42.6	60.0	49.9	49.4	38.4	34.9	33.9	60.4	56.5	55.2
Rib roast.....do	45.0	40.3	38.7	42.9	38.0	36.1	41.3	34.0	33.9	31.7	31.3	30.9	46.2	43.2	41.4
Chuck roast.....do	37.3	30.3	28.1	35.2	30.7	28.9	31.7	26.3	25.1	27.3	25.6	24.1	37.6	35.4	33.1
Plate beef.....do	20.5	17.9	16.1	20.3	18.0	16.6	27.9	23.7	23.2	20.9	19.4	18.2	28.0	26.9	24.7
Pork chops.....do	45.2	40.0	39.5	42.4	38.0	37.3	41.2	39.0	37.3	38.8	36.4	37.1	42.2	41.4	41.6
Bacon, sliced....do	43.6	41.6	41.8	49.2	45.6	45.7	39.2	38.1	38.1	51.9	47.7	48.9	41.7	39.4	40.7
Ham, sliced.....do	61.5	58.2	57.0	62.1	58.6	57.6	56.5	54.8	53.8	56.6	53.6	54.0	57.5	56.1	57.6
Lamb, leg of....do	44.4	39.7	37.6	45.1	39.4	37.5	44.0	37.7	38.5	37.8	32.6	30.7	43.6	37.9	38.6
Hens.....do	43.0	37.8	36.6	48.4	43.7	42.0	44.5	40.8	40.1	36.7	33.8	31.6	44.0	38.4	38.4
Salmon, red, canned .....do	28.1	28.9	29.0	29.7	30.8	30.6	29.9	31.2	31.5	32.6	32.5	32.6	30.2	30.4	29.5
Milk, fresh.....quart	13.0	13.0	13.0	14.0	13.0	13.0	15.0	14.0	14.0	12.0	12.0	12.0	15.7	15.0	14.8
Milk, evaporated .....16-ounce can	10.9	10.1	10.0	10.5	9.9	9.9	11.7	11.0	11.2	10.1	9.9	9.9	11.2	10.6	10.4
Butter.....pound	56.8	45.8	46.3	54.2	43.6	44.7	56.2	45.8	45.3	53.4	41.8	41.4	54.9	44.5	44.4
Oleomargarine (all butter substitutes) .....pound	28.5	27.1	27.6	27.8	26.2	26.0	27.1	25.3	24.1	26.2	24.8	24.8	26.6	24.4	23.3
Cheese.....do	43.4	41.4	40.2	41.3	37.8	36.6	38.8	35.7	35.9	38.3	34.8	33.5	39.0	35.8	35.1
Lard.....do	17.9	15.8	15.3	18.0	16.1	15.5	17.4	16.0	15.8	19.6	18.2	17.6	17.3	16.0	15.6
Vegetable lard substitute.....pound	25.1	24.5	25.0	26.9	26.3	26.6	25.8	25.7	25.6	28.3	28.5	28.4	26.3	25.1	25.6
Eggs, strictly fresh .....dozen	47.2	36.5	38.4	47.5	36.6	37.5	59.4	40.9	47.6	41.4	30.1	30.1	61.6	42.3	48.1
Bread.....pound	8.2	8.2	8.2	8.9	8.8	8.7	9.0	9.0	8.8	9.3	9.2	9.2	9.0	8.7	8.7
Flour.....do	4.8	4.6	4.6	4.6	4.4	4.3	5.1	4.6	4.4	4.7	4.4	4.1	5.4	4.8	4.7
Corn meal.....do	5.2	5.7	5.7	6.3	6.2	6.5	5.3	5.2	5.3	5.8	5.9	5.6	5.1	5.0	5.0
Rolled oats.....do	8.2	8.2	8.3	9.0	9.0	9.0	7.7	7.3	7.2	10.1	9.9	9.7	9.0	9.0	9.0
Corn flakes .....8-ounce package	8.7	8.5	8.6	9.6	9.4	9.4	9.7	9.7	9.7	9.6	9.3	9.3	9.5	9.0	9.2
Wheat cereal .....28-ounce package	24.6	24.6	24.6	24.6	25.0	25.4	25.8	25.9	25.9	27.0	26.7	26.6	24.8	24.5	24.5
Macaroni.....pound	20.4	20.3	19.8	22.7	22.3	21.9	23.0	23.0	23.1	18.5	17.0	16.9	22.8	23.0	22.7
Rice.....do	9.9	10.1	10.6	11.2	10.1	10.3	11.1	11.3	11.0	10.1	9.5	9.4	9.6	9.6	9.1
Beans, navy.....do	15.0	11.7	11.9	14.9	10.2	10.3	13.7	12.0	12.5	14.9	12.6	12.5	13.6	11.7	11.5
Potatoes.....do	4.1	4.5	3.2	3.7	4.4	2.9	4.1	3.1	3.0	4.0	4.3	3.0	3.7	3.6	2.9
Onions.....do	6.0	5.3	5.2	7.6	7.0	6.7	7.4	6.6	6.6	4.7	3.6	3.8	7.3	6.1	6.2
Cabbage.....do	4.3	4.7	3.7	5.3	6.7	5.6	5.2	6.8	5.2	3.6	4.2	4.0	4.2	6.0	3.2
Pork and beans .....No. 2 can	11.1	10.2	10.5	13.1	11.8	11.8	15.5	16.0	15.8	13.5	12.0	11.8	11.5	10.8	10.9
Corn, canned....do	14.8	14.4	14.0	16.0	15.4	15.7	14.4	14.3	14.3	18.3	16.7	17.0	16.6	17.1	16.2
Peas, canned....do	15.1	15.0	14.8	16.7	15.8	15.9	18.2	17.0	17.0	17.3	16.5	16.0	17.4	17.9	17.1
Tomatoes, canned .....No. 2 can	14.0	11.4	11.3	14.7	12.5	12.5	12.8	11.8	12.7	[4] 16.1	[4] 14.7	[4] 14.6	13.6	12.9	12.6
Sugar, granulated .....pound	5.6	5.5	5.5	6.7	6.4	6.4	6.3	6.0	6.0	6.7	6.1	6.0	6.0	5.8	5.7
Tea.....do	72.0	72.7	73.0	82.5	80.9	80.5	61.5	63.7	63.7	77.4	81.6	81.6	59.8	59.5	61.7
Coffee.....do	43.7	33.5	34.5	49.5	40.6	40.5	52.7	44.7	44.7	53.0	44.1	44.5	52.3	40.2	38.7
Prunes.....do	13.2	15.8	15.3	14.6	16.9	16.3	13.8	16.0	15.0	14.4	11.0	10.7	13.6	15.1	14.5
Raisins.....do	10.9	11.3	11.3	11.7	12.3	12.1	10.7	11.5	11.3	11.5	11.6	11.0	11.7	12.7	12.1
Bananas.....dozen	29.1	29.4	27.9	36.1	35.0	34.9	[2] 10.4	[2] 8.7	[2] 9.0	[2] 10.2	[2] 10.1	[2] 9.9	32.1	30.0	30.6
Oranges.....do	43.4	67.3	60.6	48.3	75.1	64.5	52.8	76.7	71.5	30.2	55.8	53.5	55.7	76.4	75.3

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most other cities included in this report it would be known as "porterhouse" steak.
[2] Per pound.
[4] No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Richmond, Va.			Rochester, N. Y.			St. Louis, Mo.			St. Paul, Minn.			Salt Lake City, Utah		
	July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak..pound..	51.3	47.4	46.5	52.2	46.5	46.0	49.6	44.8	42.3	45.8	40.4	39.5	41.2	37.8	37.5
Round steak....do....	45.4	42.5	41.4	45.5	40.6	39.4	48.4	43.1	40.9	41.2	36.1	34.5	39.2	37.5	37.4
Rib roast.....do....	38.1	35.5	34.7	36.9	33.9	31.9	38.4	35.1	34.1	36.6	32.8	30.6	33.2	32.2	32.0
Chuck roast.....do....	29.4	29.4	27.4	32.5	29.4	27.1	31.9	27.3	25.6	31.0	27.4	25.3	27.5	26.7	25.6
Plate beef.....do....	23.7	21.3	20.9	20.5	17.5	15.5	22.2	19.1	17.6	19.1	16.5	15.3	20.4	19.3	18.0
Pork chops.....do....	39.0	36.5	36.1	43.5	39.0	38.0	37.2	33.7	33.3	36.0	34.1	33.1	39.7	38.7	39.2
Bacon, sliced.....do....	38.5	38.1	39.2	38.8	36.9	36.9	42.2	40.5	39.6	44.5	41.6	41.2	45.4	43.8	43.7
Ham, sliced.....do....	45.6	43.1	43.6	54.6	52.8	53.3	55.8	52.6	51.4	50.3	48.1	47.8	59.2	56.9	56.5
Lamb, leg of....do....	46.2	40.6	40.3	40.9	34.5	34.4	39.9	36.2	34.2	33.9	31.2	29.9	39.8	34.5	33.8
Hens.....do....	39.4	36.1	33.8	42.3	37.9	34.6	40.2	33.6	32.4	34.4	29.1	28.4	35.0	31.5	31.2
Salmon, red, canned .....do....	31.0	31.9	32.0	30.9	30.6	31.2	31.9	32.8	32.8	35.8	35.4	35.4	33.4	33.1	33.2
Milk, fresh.....quart..	14.0	14.0	14.0	13.5	14.0	14.0	13.0	13.0	13.0	12.0	11.0	11.0	10.0	10.0	10.0
Milk, evaporated .....16-ounce can..	12.0	11.2	11.2	11.1	10.1	9.8	10.0	9.5	9.5	11.5	10.3	10.3	9.9	9.9	9.8
Butter.....pound..	57.1	46.4	46.3	53.2	41.8	42.3	54.6	44.2	44.8	48.3	39.2	39.8	50.5	37.0	38.0
Oleomargarine (all butter substitutes) .....pound..	29.8	29.9	30.3	28.0	26.3	26.5	26.0	24.1	24.9	24.2	22.1	22.7	28.8	27.6	27.7
Cheese.....do....	35.1	30.6	29.5	39.3	34.3	34.9	36.1	31.8	31.3	35.5	32.7	31.2	29.6	27.4	26.9
Lard.....do....	17.5	16.1	16.1	16.8	14.9	14.9	15.0	13.2	13.0	18.7	16.4	16.5	19.7	18.7	18.6
Vegetable lard substitute.....pound..	25.4	23.3	23.6	25.6	22.4	22.8	25.2	25.1	25.1	27.0	26.2	26.7	29.5	29.3	29.3
Eggs, strictly fresh .....dozen..	40.7	30.8	32.0	45.0	34.5	35.6	38.9	28.4	28.5	37.1	25.6	27.0	38.2	30.2	29.9
Bread.....pound..	8.9	8.6	8.6	8.6	8.4	8.5	9.2	8.9	8.9	9.3	9.3	9.3	9.7	9.4	9.3
Flour.....do....	4.8	4.8	4.6	4.9	4.5	4.4	4.7	4.6	4.5	4.8	4.5	4.2	3.6	3.6	3.5
Corn meal.....do....	4.8	4.7	4.6	5.7	5.8	5.8	4.7	4.8	4.6	5.3	5.4	5.4	5.9	6.6	6.6
Rolled oats.....do....	8.7	8.7	8.8	8.6	8.1	8.1	8.0	7.9	7.9	10.1	9.2	9.2	8.5	8.4	8.4
Corn flakes .....8-ounce package..	9.7	9.6	9.6	9.3	9.2	9.1	9.1	9.3	9.4	10.3	9.9	9.9	10.2	9.8	9.8
Wheat cereal .....28-ounce package..	25.8	25.3	25.4	25.0	24.0	24.2	24.2	24.3	24.3	25.8	26.2	26.2	25.1	25.4	25.1
Macaroni.....pound..	20.1	20.4	19.5	18.9	18.8	18.0	20.3	19.8	19.6	18.5	17.6	17.8	19.5	19.2	19.7
Rice.....do....	11.0	10.3	9.9	8.8	8.9	8.9	10.0	9.2	9.2	10.7	9.5	9.6	8.6	9.0	9.0
Beans, navy.....do....	14.7	11.8	10.8	14.4	10.6	10.6	13.9	10.4	10.2	14.7	12.1	11.9	12.6	9.6	10.1
Potatoes.....do....	3.2	4.8	3.5	3.6	4.2	2.6	4.5	4.3	2.9	2.6	3.8	2.1	4.6	4.6	2.4
Onions.....do....	7.8	6.9	6.0	7.1	5.8	6.1	6.9	5.5	5.9	6.8	5.5	5.8	7.4	5.1	5.8
Cabbage.....do....	2.9	4.0	4.4	6.8	6.2	3.5	4.4	4.0	3.3	4.0	6.3	3.9	4.8	6.6	3.2
Pork and beans .....No. 2 can..	11.4	9.8	9.8	10.9	10.1	10.2	10.5	10.1	10.1	13.9	12.6	12.5	12.7	12.4	12.3
Corn, canned....do....	15.6	14.7	14.1	15.8	15.6	15.4	15.1	14.5	14.4	14.9	14.5	14.2	14.3	14.1	14.0
Peas, canned....do....	17.5	17.7	17.2	17.1	15.0	15.2	15.1	15.0	14.5	14.8	14.7	14.2	15.1	14.7	14.4
Tomatoes, canned .....No. 2 can..	14.4	11.2	11.4	16.1	15.2	15.3	13.8	12.2	12.0	14.7	14.4	14.4	[4] 14.1	[4] 13.8	[4] 13.9
Sugar, granulated .....pound..	6.1	5.8	5.6	5.9	5.6	5.5	6.5	6.2	6.0	6.7	6.3	6.3	6.8	6.4	6.5
Tea.....do....	95.0	96.5	99.4	67.6	68.8	70.0	73.6	71.1	69.4	72.7	65.7	63.8	85.0	85.0	84.2
Coffee.....do....	47.1	39.7	39.3	47.5	34.9	35.2	47.3	37.8	37.6	53.3	45.2	43.5	54.9	48.1	47.6
Prunes.....do....	14.2	17.8	17.4	14.7	17.5	17.9	15.0	18.6	17.9	14.8	18.2	17.3	13.6	16.9	16.7
Raisins.....do....	10.8	12.5	12.0	12.1	11.8	11.8	11.2	11.6	11.2	13.5	13.1	12.9	11.6	11.4	11.5
Bananas.....dozen..	32.5	33.8	33.8	26.3	29.2	28.6	32.5	30.0	30.2	[3] 10.2	[3] 10.2	[3] 9.5	[3] 11.1	[3] 9.4	[3] 9.6
Oranges.....do....	41.2	69.7	62.8	44.4	70.7	65.9	46.5	59.5	59.1	46.0	62.1	60.6	35.4	61.2	58.1

[3] Per pound.

[4] No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	San Francisco, Calif.			Savannah, Ga.			Scranton, Pa.			Seattle, Wash.		
	July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930		July 15, 1929	1930	
		June 15	July 15		June 15	July 15		June 15	July 15		June 15	July 15
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak, pound	41.1	41.0	39.7	44.5	40.5	40.9	64.0	57.4	56.0	45.2	43.1	41.8
Round steak, do	38.9	39.1	37.7	40.0	36.8	36.8	54.8	48.4	47.4	40.5	38.9	37.8
Rib roast, do	36.0	34.8	34.6	35.7	32.9	33.5	44.2	39.9	39.6	35.4	33.5	33.1
Chuck roast, do	25.2	24.3	23.5	28.0	25.2	25.2	36.7	33.4	32.5	28.2	26.9	25.3
Plate beef, do	19.7	18.5	17.5	22.4	20.3	20.5	20.4	18.4	17.5	21.5	20.5	19.7
Pork chops, do	42.1	40.2	40.1	32.3	31.8	31.4	44.5	40.0	40.0	41.8	39.1	39.0
Bacon, sliced, do	55.6	55.1	55.6	39.5	36.1	36.7	46.9	47.0	47.6	55.0	52.6	51.9
Ham, sliced, do	63.5	63.0	63.0	45.5	45.0	44.6	62.5	58.9	58.9	60.2	58.4	57.9
Lamb, leg of, do	40.5	35.3	34.6	37.8	35.9	36.4	48.7	41.9	42.0	39.0	35.9	35.2
Hens, do	44.1	41.8	39.3	32.5	30.2	29.6	46.4	42.6	40.5	36.8	35.4	33.9
Salmon, red, canned, do	28.4	30.0	29.8	33.0	32.5	32.1	32.5	32.3	32.7	32.9	33.7	33.7
Milk, fresh, quart	14.0	14.0	14.0	17.5	18.0	18.0	13.0	14.0	14.0	12.0	12.0	12.0
Milk, evaporated, 16-ounce can	9.9	9.7	9.7	10.7	9.8	9.9	11.4	10.7	10.7	10.2	9.9	9.7
Butter, pound	54.7	44.8	44.1	54.6	42.9	43.4	54.9	43.5	43.3	54.1	43.2	42.2
Oleomargarine (all butter substitutes), pound	24.9	24.9	24.7	30.2	26.6	26.3	27.8	22.5	22.4	25.0	24.6	24.7
Cheese, do	40.2	39.2	36.9	34.9	28.2	27.4	38.4	37.1	36.7	35.7	34.0	33.1
Lard, do	22.7	20.8	20.6	18.6	16.0	16.5	19.3	17.3	17.1	19.8	18.9	18.6
Vegetable lard substitute, do	27.8	28.1	27.0	17.2	16.3	16.5	26.4	26.4	26.6	26.5	26.4	26.2
Eggs, strictly fresh, dozen	42.2	33.5	33.3	41.3	32.4	36.3	48.6	36.4	38.1	41.0	34.0	33.5
Bread, pound	9.3	9.2	9.2	10.7	10.4	10.4	9.7	10.0	10.0	9.6	9.7	9.6
Flour, do	5.1	5.0	4.9	6.4	5.5	5.4	5.3	5.2	5.1	4.7	4.4	4.3
Corn meal, do	7.1	7.3	7.2	3.7	3.5	3.5	7.7	7.7	7.6	5.9	6.3	6.1
Rolled oats, do	9.8	9.8	9.9	8.9	8.7	8.5	9.9	9.4	9.5	8.8	9.7	9.8
Corn flakes, 8-ounce package	9.6	9.8	9.7	9.7	9.5	9.5	9.8	9.8	9.6	9.9	9.6	9.4
Wheat cereal, 28-ounce package	25.2	25.2	25.4	24.0	24.8	24.5	25.5	25.8	25.6	26.7	26.3	26.2
Macaroni, pound	15.9	16.8	16.6	17.7	17.4	17.4	22.7	22.1	21.7	18.1	17.6	17.6
Rice, do	9.7	9.3	9.0	9.2	8.4	8.4	10.0	10.0	10.2	10.3	9.7	9.8
Beans, navy, do	13.4	12.3	12.2	14.8	13.4	13.4	14.1	12.6	12.6	14.8	12.8	12.6
Potatoes, do	4.2	4.3	4.1	3.7	4.1	3.8	3.7	4.1	2.9	3.8	4.3	3.3
Onions, do	4.3	4.0	3.9	7.5	6.0	6.2	6.8	6.1	5.9	5.4	4.4	4.2
Cabbage, do				4.4	4.7	4.8	4.6	6.2	4.2	4.7	5.2	4.5
Pork and beans, No. 2 can	13.0	11.6	11.2	10.8	10.2	10.1	12.2	11.6	11.6	12.5	11.3	11.0
Corn, canned, do	17.5	17.3	17.0	15.0	14.7	14.5	16.9	16.9	16.8	17.9	17.0	16.8
Peas, canned, do	17.8	17.3	17.0	16.2	17.0	17.2	17.4	17.5	17.3	18.3	17.1	16.9
Tomatoes, canned, do	[4] 15.9	[4] 15.8	[4] 15.5	11.8	9.9	9.7	14.0	13.2	13.1	[4] 16.6	[4] 16.0	[4] 15.5
Sugar, granulated, pound	6.1	5.9	5.8	6.1	5.8	5.7	6.5	6.1	6.1	6.3	6.0	6.0
Tea, do	73.3	75.0	75.0	81.8	83.8	83.8	66.1	66.9	66.6	79.5	78.8	78.9
Coffee, do	53.5	45.3	45.0	45.6	35.7	36.1	49.8	42.3	41.7	51.0	42.9	42.5
Prunes, do	12.5	14.2	13.4	13.8	16.7	15.3	14.6	16.7	16.2	14.6	14.6	13.6
Raisins, do	10.6	10.9	11.1	11.7	11.0	11.0	11.9	11.6	11.8	10.7	10.7	10.6
Bananas, dozen	29.1	31.3	29.5	29.5	28.3	28.0	30.0	28.1	28.5	[3] 10.8	[3] 9.2	[3] 8.8
Oranges, do	42.4	71.2	63.9	42.8	60.2	59.6	52.3	81.1	75.9	38.8	69.5	63.9

[3] Per pound.

[4] No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article		Springfield, Ill.			Washington, D. C.			Hawaii			
			1930			1930		Honolulu		Other localities	
								1930			
		July 15, 1929	June 15	July 15	July 15, 1929	June 15	July 15	June 15	July 15	June 15	July 15
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	pound	47.0	41.5	37.6	59.7	52.1	50.2	38.4	38.0	32.8	32.8
Round steak	do	47.2	40.9	37.5	54.3	46.2	44.3	32.7	32.7	30.8	30.0
Rib roast	do	35.6	31.4	29.7	40.9	36.6	36.1	32.8	32.3	30.0	29.0
Chuck roast	do	31.7	26.5	24.3	35.2	28.0	27.1	25.0	25.0	26.5	26.0
Plate beef	do	22.5	18.5	16.9	20.8	16.7	15.4	23.5	23.5	23.3	23.3
Pork chops	do	34.4	32.0	30.4	43.6	39.5	39.4	43.2	43.4	36.8	36.8
Bacon, sliced	do	44.5	41.5	43.2	43.5	40.7	40.8	55.2	55.2	52.1	52.1
Ham, sliced	do	54.1	49.5	50.5	60.2	57.4	57.2	64.6	64.2	58.3	56.7
Lamb, leg of	do	44.8	36.4	36.4	43.3	38.5	37.7	40.3	40.2	46.7	46.7
Hens	do	35.3	31.7	31.7	46.1	40.3	39.9	45.0	51.0	55.0	50.0
Salmon, red, canned	do	34.2	34.2	34.2	29.9	29.9	30.1	30.0	30.1	30.7	30.8
Milk, fresh	quart	14.4	14.4	14.4	14.8	15.0	15.0	20.3	20.3	15.0	15.0
Milk, evaporated	16-ounce can	11.3	9.9	10.0	11.6	10.1	10.3	10.2	10.1	10.8	10.6
Butter	pound	50.8	41.2	41.4	56.0	45.6	46.4	53.5	52.8	55.3	54.0
Oleomargarine (all butter substitutes)	pound	28.6	27.1	27.5	26.5	25.6	25.2				
Cheese	do	36.9	34.1	33.3	41.4	36.4	35.4	37.7	36.8	36.7	36.4
Lard	do	17.6	15.5	15.0	17.8	15.4	15.0	27.5	25.0	26.7	26.7
Vegetable lard substitute	do	27.8	26.9	26.8	24.6	24.3	24.3	27.1	27.3	26.8	26.8
Eggs, strictly fresh	dozen	35.6	25.5	25.0	46.2	36.2	37.3	48.7	52.4	52.5	54.6
Bread	pound	10.1	10.3	10.3	8.9	8.9	8.9	10.6	10.6	10.0	10.0
Flour	do	4.4	4.3	4.1	5.4	5.1	5.0	5.8	5.6	5.0	5.0
Corn meal	do	4.6	4.8	4.7	5.1	4.9	4.9	10.8	10.8	12.2	12.2
Rolled oats	do	9.5	9.6	9.9	9.1	8.9	9.0	12.6	12.6	13.7	13.7
Corn flakes	8-ounce package	9.5	9.3	9.3	9.2	9.1	9.1	13.0	12.8	13.6	13.8
Wheat cereal	28-ounce package	27.2	27.4	27.3	24.2	24.0	23.9	27.3	27.1	28.6	28.1
Macaroni	pound	18.4	18.3	18.2	21.9	21.2	21.2	19.3	19.2	20.4	20.4
Rice	do	9.9	9.7	9.8	11.2	10.4	10.6	6.1	5.9	5.4	5.4
Beans, navy	do	14.2	10.1	10.0	14.1	11.5	11.2	14.4	13.9	13.2	12.8
Potatoes	do	3.9	4.2	3.1	4.0	4.6	3.4	4.8	4.8	4.9	4.8
Onions	do	7.5	7.2	6.8	7.4	6.1	5.9	4.3	4.1	4.6	4.3
Cabbage	do	4.8	6.1	3.5	4.5	5.1	5.3	6.3	5.2	4.5	4.5
Pork and beans	No. 2 can	11.3	9.7	9.5	10.9	10.5	10.5	11.2	11.1	10.8	10.8
Corn, canned	do	14.9	14.8	14.2	15.8	15.0	15.2	18.8	18.2	20.8	20.1
Peas, canned	do	15.5	15.2	14.8	14.8	16.1	16.2	18.4	18.7	19.4	19.4
Tomatoes, canned	do	15.1	13.7	13.7	12.9	10.8	10.6	15.0	15.3	17.9	17.9
Sugar, granulated	pound	6.8	6.5	6.3	6.3	5.5	5.6	6.2	5.9	6.3	6.2
Tea	do	83.1	82.5	81.8	90.9	91.6	92.8	85.6	85.9	84.8	85.6
Coffee	do	51.7	44.4	43.6	46.5	36.5	35.9	40.8	40.7	45.3	44.8
Prunes	do	15.8	18.4	18.3	16.0	18.7	18.0	16.6	15.9	17.6	17.4
Raisins	do	12.3	13.2	13.2	13.0	12.5	12.4	12.2	12.2	14.5	13.8
Bananas	dozen	[1] 9.2	[1] 8.4	[1] 8.7	30.8	28.1	27.9	[1] 4.7	[1] 4.6	[1] 5.0	[1] 5.0
Oranges	do	48.2	74.1	77.7	48.5	76.8	64.9	62.7	64.8	67.5	71.7

[1] Per pound.

Comparison of Retail Food Costs in 51 Cities

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food[3] in July, 1930, compared with the average cost in the year, 1913, in July, 1929, and June, 1930. For 12 other cities comparisons are given for the 1-year and the 1-month periods, these cities having been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.[4]

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of July, 99 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 37 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Boston, Bridgeport, Buffalo, Butte, Charleston (S. C.), Cincinnati, Cleveland, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Little Rock, Louisville, Manchester, Milwaukee, Minneapolis, New Orleans, New York, Norfolk, Omaha, Peoria, Philadelphia, Pittsburgh, Portland (Me.), Portland (Oreg.), Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, San Francisco, Savannah, Scranton, and Springfield (Ill.).

TABLE 6.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN JULY, 1930, COMPARED WITH THE COST IN JUNE, 1930, AND JULY, 1929, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percentage increase July, 1930, compared with 1913	Percentage decrease July, 1930, compared with—		City	Percentage increase July, 1930, compared with 1913	Percentage decrease July, 1930, compared with—	
		July, 1929	June, 1930			July, 1929	June, 1930
Atlanta	45.9	9.4	*0.3	Minneapolis	43.4	10.1	5.5
Baltimore	48.4	9.5	2.7	Mobile		7.3	.5
Birmingham	49.7	6.5	.3	Newark	39.4	8.3	2.3
Boston	48.2	7.8	1.3	New Haven	46.1	8.3	1.5
Bridgeport		9.1	1.6	New Orleans	42.9	9.0	1.5
Buffalo	46.2	10.4	3.9	New York	46.9	8.6	2.1
Butte		10.1	1.3	Norfolk		9.7	2.6
Charleston, S. C	48.8	4.5	1.2	Omaha	35.9	9.5	6.2
Chicago	55.9	8.3	3.1	Peoria		7.1	4.4
Cincinnati	52.5	7.1	2.2	Philadelphia	44.5	9.9	3.1
Cleveland	41.3	10.3	2.8	Pittsburgh	43.2	10.7	4.0
Columbus		7.6	4.5	Portland, Me		10.9	.3
Dallas	43.9	8.0	.4	Portland, Oreg	30.6	10.6	3.7
Denver	30.4	9.7	2.8	Providence	45.6	10.0	1.8
Detroit	46.9	12.8	3.5	Richmond	49.2	7.0	3.0
Fall River	42.9	9.0	2.0	Rochester		10.4	4.0
Houston		8.2	1.6	St. Louis	44.6	12.4	4.3
Indianapolis	44.6	8.1	3.0	St. Paul		11.0	5.5
Jacksonville	37.4	5.6	*.2	Salt Lake City	25.4	11.6	5.1
Kansas City	36.1	12.1	6.8	San Francisco	43.7	6.4	1.9
Little Rock	40.0	6.7	.6	Savannah		7.1	*.3
Los Angeles	30.8	9.7	2.1	Scranton	51.8	7.5	2.8
Louisville	38.8	10.9	4.2	Seattle	38.7	8.0	3.5
Manchester	43.6	8.6	1.9	Springfield, Ill		10.0	4.4
Memphis	38.9	8.8	2.3	Washington	50.8	10.1	2.4
Milwaukee	45.6	11.9	3.9				

* Increase.

[3] For list of articles see note 1, p. 202.

[4] The consumption figures used from January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month, beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

Retail Prices of Coal in the United States [1]

THE following table shows the average retail prices of coal on July 15, 1929, and June 15 and July 15, 1930, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JULY 15, 1929, AND JUNE 15 AND JULY 15, 1930

City, and kind of coal	1929	1930	
	July 15	June 15	July 15
United States:			
Pennsylvania anthracite—			
Stove—			
Average price	$14.94	$14.62	$14.84
Index (1913=100)	193.4	189.3	192.1
Chestnut—			
Average price	$14.63	$14.32	$14.53
Index (1913=100)	184.8	180.9	183.6
Bituminous—			
Average price	$8.62	$8.54	$8.65
Index (1913=100)	158.6	157.2	159.1
Atlanta, Ga.:			
Bituminous, prepared sizes	$7.49	$7.19	$7.14
Baltimore, Md.:			
Pennsylvania anthracite—			
Stove	14.00	13.58	14.00
Chestnut	13.50	13.08	13.50
Bituminous, run of mine—			
High volatile	7.79	7.68	7.61
Birmingham, Ala.:			
Bituminous, prepared sizes	6.98	6.90	6.96
Boston, Mass.:			
Pennsylvania anthracite—			
Stove	15.80	15.35	15.50
Chestnut	15.30	14.85	15.00
Bridgeport, Conn.:			
Pennsylvania anthracite—			
Stove	14.50	14.50	14.50
Chestnut	14.50	14.50	14.50
Buffalo, N. Y.:			
Pennsylvania anthracite—			
Stove	13.23	13.20	13.42
Chestnut	12.90	12.71	12.93
Butte, Mont.:			
Bituminous, prepared sizes	11.20	11.11	11.09
Charleston, S. C.:			
Bituminous, prepared sizes	9.67	9.67	9.67
Chicago, Ill.:			
Pennsylvania anthracite—			
Stove	16.55	16.38	16.38
Chestnut	16.10	15.92	15.93
Bituminous—			
Prepared sizes—			
High volatile	7.74	7.69	7.78
Low volatile	10.35	10.38	10.29
Run of mine—			
Low volatile	7.50	7.75	7.75
Cincinnati, Ohio:			
Bituminous—			
Prepared sizes—			
High volatile	$5.70	$5.70	$5.80
Low volatile	7.63	7.75	7.75
Cleveland, Ohio:			
Pennsylvania anthracite—			
Stove	15.10	14.80	14.56
Chestnut	14.55	14.50	14.31
Bituminous—			
Prepared sizes—			
High volatile	7.19	6.90	6.75
Low volatile	9.03	9.15	9.25
Columbus, Ohio:			
Bituminous—			
Prepared sizes—			
High volatile	5.79	5.79	5.79
Low volatile	7.31	7.13	7.19
Dallas, Tex.:			
Arkansas anthracite—Egg	14.50	14.00	14.25
Bituminous, prepared sizes	12.33	12.17	12.17
Denver, Colo.:			
Colorado anthracite—			
Furnace, 1 and 2 mixed	14.80	14.94	14.94
Stove, 3 and 5 mixed	14.30	14.94	14.94
Bituminous, prepared sizes	9.67	9.76	9.89
Detroit, Mich.:			
Pennsylvania anthracite—			
Stove	15.50	14.25	14.25
Chestnut	15.00	14.25	14.25
Bituminous—			
Prepared sizes—			
High volatile	8.23	8.00	8.09
Low volatile	9.53	9.46	9.46
Run of mine—			
Low volatile	7.67	7.67	7.67
Fall River, Mass.:			
Pennsylvania anthracite—			
Stove	16.00	15.75	16.00
Chestnut	16.00	15.50	15.75
Houston, Tex.:			
Bituminous, prepared sizes	11.60	11.60	11.60
Indianapolis, Ind.:			
Bituminous—			
Prepared sizes—			
High volatile	6.01	5.73	5.80
Low volatile	7.93	7.96	8.21
Run of mine—			
Low volatile	6.63	6.80	6.90

[1] Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JULY 15, 1929, AND JUNE 15 AND JULY 15, 1930—Continued

City, and kind of coal	1929	1930	
	July 15	June 15	July 15
Jacksonville, Fla.:			
Bituminous, prepared sizes	$12.00	$13.00	$12.00
Kansas City, Mo.:			
Arkansas anthracite—			
Furnace	12.00	12.05	12.00
Stove No. 4	13.17	12.67	12.75
Bituminous, prepared sizes	7.28	7.06	7.04
Little Rock, Ark.:			
Arkansas anthracite—Egg	12.50	12.50	12.50
Bituminous, prepared sizes	9.45	9.40	9.20
Los Angeles, Calif.:			
Bituminous, prepared sizes	15.75	16.25	16.25
Louisville, Ky.:			
Bituminous—			
Prepared sizes—			
High volatile	6.16	6.19	6.18
Low volatile	8.75	8.50	8.50
Manchester, N. H.:			
Pennsylvania anthracite—			
Stove	16.50	16.00	16.50
Chestnut	16.50	16.00	16.50
Memphis, Tenn.:			
Bituminous, prepared sizes	7.39	7.82	7.85
Milwaukee, Wis.:			
Pennsylvania anthracite—			
Stove	16.00	15.75	15.75
Chestnut	15.60	15.30	15.30
Bituminous—			
Prepared sizes—			
High volatile	7.67	7.68	7.68
Low volatile	10.49	10.16	10.43
Minneapolis, Minn.:			
Pennsylvania anthracite—			
Stove	18.00	17.75	17.75
Chestnut	17.60	17.30	17.30
Bituminous—			
Prepared sizes—			
High volatile	10.41	10.26	10.26
Low volatile	13.24	13.14	13.14
Mobile, Ala.:			
Bituminous, prepared sizes	9.02	8.83	8.90
Newark, N. J.:			
Pennsylvania anthracite—			
Stove	13.65	13.46	13.63
Chestnut	13.15	12.96	13.13
New Haven, Conn.:			
Pennsylvania anthracite—			
Stove	14.60	14.40	14.65
Chestnut	14.60	14.40	14.65
New Orleans, La.:			
Bituminous, prepared sizes	9.21	9.11	9.11
New York, N. Y.:			
Pennsylvania anthracite—			
Stove	14.13	13.21	13.58
Chestnut	13.63	12.71	13.08
Norfolk, Va.:			
Pennsylvania anthracite—			
Stove	14.00	13.50	14.00
Chestnut	14.00	13.50	14.00
Bituminous—			
Prepared sizes—			
High volatile	7.81	6.75	7.38
Low volatile	9.00	7.00	8.50
Run of mine—			
Low volatile	7.00	6.50	7.00
Omaha, Nebr.:			
Bituminous, prepared sizes	9.60	9.88	9.62
Peoria, Ill.:			
Bituminous, prepared sizes	6.49	6.29	6.27
Philadelphia, Pa.:			
Pennsylvania anthracite—			
Stove	[1] 14.50	13.00	13.25
Chestnut	[1] 14.07	12.50	12.75
Pittsburgh, Pa.:			
Pennsylvania anthracite—			
Chestnut	$15.00	$14.75	$14.75
Bituminous, prepared sizes	5.18	5.11	5.11
Portland, Me.:			
Pennsylvania anthracite—			
Stove	16.20	16.32	16.56
Chestnut	16.20	16.32	16.56
Portland, Oreg.:			
Bituminous, prepared sizes	12.57	13.18	13.09
Providence, R. I.:			
Pennsylvania anthracite—			
Stove	[2] 15.50	[2] 15.25	[2] 15.75
Chestnut	[2] 15.50	[2] 15.25	[2] 15.75
Richmond, Va.:			
Pennsylvania anthracite—			
Stove	14.00	14.00	14.50
Chestnut	14.00	14.00	14.50
Bituminous—			
Prepared sizes—			
High volatile	7.88	7.75	8.25
Low volatile	8.53	7.86	8.37
Run of mine—			
Low volatile	6.75	6.89	6.75
Rochester, N. Y.:			
Pennsylvania anthracite—			
Stove	14.25	13.95	14.45
Chestnut	13.75	13.45	13.95
St. Louis, Mo.:			
Pennsylvania anthracite—			
Stove	16.45	16.23	16.25
Chestnut	16.20	15.98	16.00
Bituminous, prepared sizes	6.34	5.77	6.00
St. Paul, Minn.:			
Pennsylvania anthracite—			
Stove	18.00	17.75	17.75
Chestnut	17.60	17.30	17.30
Bituminous—			
Prepared sizes—			
High volatile	10.18	10.08	10.08
Low volatile	13.27	13.15	13.15
Salt Lake City, Utah:			
Colorado anthracite—			
Furnace, 1 and 2 mixed	18.00	------	------
Stove, 3 and 5 mixed	18.00	------	------
Bituminous, prepared sizes	7.93	8.36	8.40
San Francisco, Calif.:			
New Mexico anthracite—			
Cerillos egg	25.00	25.00	25.00
Colorado anthracite—			
Egg	24.50	24.50	24.50
Bituminous, prepared sizes	16.00	15.75	15.75
Savannah, Ga.:			
Bituminous, prepared sizes	[3] 9.54	[3] 9.62	[3] 9.62
Scranton, Pa.:			
Pennsylvania anthracite—			
Stove	10.12	9.75	9.87
Chestnut	9.75	9.38	9.50
Seattle, Wash.:			
Bituminous, prepared sizes	10.42	10.57	10.68
Springfield, Ill.:			
Bituminous, prepared sizes	4.34	4.37	4.37
Washington, D. C.:			
Pennsylvania anthracite—			
Stove	[1] 15.29	[1] 14.98	[1] 15.23
Chestnut	[1] 14.79	[1] 14.48	[1] 14.73
Bituminous—			
Prepared sizes—			
High volatile	[1] 8.63	[1] 8.21	[1] 8.38
Low volatile	[1] 11.00	[1] 10.68	[1] 10.93
Run of mine—			
Mixed	[1] 7.63	[1] 7.78	[1] 7.81

[1] Per ton of 2,240 pounds.

[2] The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.

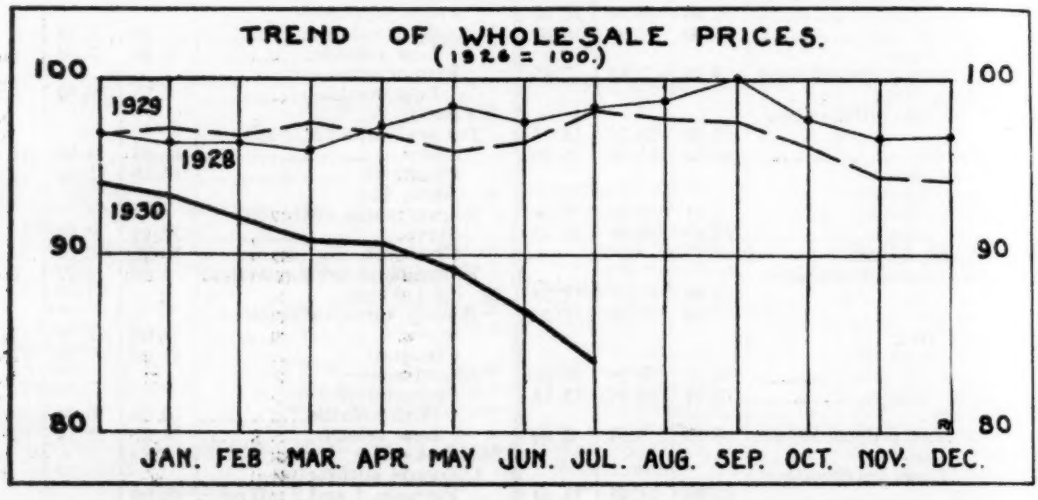
[3] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

Wholesale Prices in July, 1930

THE wholesale price index number of the Bureau of Labor Statistics of the United States Department of Labor is here presented. Of the 550 commodities or price series for which comparable information for June and July was collected, increases were shown in 57 instances and decreases in 236 instances. In 257 instances no change in price was reported.

This index stands at 84.0 for July, compared with 86.8 for June. This is on the basis of the average for 1926 equaling 100. Based upon these figures the purchasing power of the 1926 dollar represented $1.19 in July, 1930.

Farm products decreased in price, with declines in oats, wheat, beef cattle, hogs, sheep and lambs, cotton, and potatoes. The decrease in the group as a whole from the June level was 6½ per cent. Somewhat higher prices were recorded for corn and hay.



Foods declined over 4½ per cent from the June average, fresh and cured meats, coffee, flour, lard, and canned fruits sharing in the decrease.

Hides and leather products were somewhat lower than in June, with hides and skins showing an appreciable drop and leather a minor decline. Practically no change was reported for boots and shoes and other leather products.

Textile products were downward, with cotton goods, silk and rayon, woolen and worsted goods, and other textiles all participating in the decline.

In the group of fuel and lighting materials there were slight advances in anthracite and bituminous coal, while petroleum products declined, causing a small net decrease for the group.

Metals and metal products again averaged lower, with small declines in most iron and steel products and larger declines in nonferrous metals, including aluminum, copper, lead, tin, and zinc.

Building materials continued to decline, lumber, structural steel, and paint materials, averaging lower than in June.

Prices of chemicals, drugs and pharmaceuticals, fertilizer materials and mixed fertilizers all were below those of the month before.

House-furnishing goods showed no change in the price level, while in the group designated as miscellaneous there was a drop in prices of cattle feed and a slight drop in prices of paper and pulp, rubber, automobile tires, and lubricating and cylinder oil.

Decrease from June levels were shown for the three large groups of raw materials, semimanufactured articles, and finished products, while nonagricultural commodities and the group of all commodities other than farm products and foods also declined.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

Groups and subgroups	July, 1929	June, 1930	July, 1930	Purchasing power of the dollar, July, 1930
All commodities	98.0	86.8	84.0	$1.190
Farm products	107.6	88.9	83.1	1.203
Grains	102.2	78.7	74.1	1.350
Livestock and poultry	114.9	88.5	81.8	1.222
Other farm products	104.5	92.7	86.9	1.151
Foods	102.8	90.5	86.3	1.159
Butter, cheese, and milk	103.4	90.4	92.0	1.087
Meats	116.7	99.9	91.8	1.089
Other foods	94.0	85.1	80.7	1.239
Hides and leather products	109.2	102.4	100.7	.993
Hides and skins	114.5	99.0	94.0	1.064
Leather	112.1	102.9	100.1	.999
Boots and shoes	106.1	103.0	102.9	.972
Other leather products	105.8	105.1	105.2	.951
Textile products	92.8	82.2	80.0	1.250
Cotton goods	98.7	89.3	87.4	1.144
Silk and rayon	78.6	64.3	60.4	1.656
Woolen and worsted goods	97.2	88.6	88.0	1.136
Other textile products	79.7	69.0	65.5	1.527
Fuel and lighting materials	82.0	76.4	75.4	1.326
Anthracite coal	89.1	85.8	86.5	1.156
Bituminous coal	89.9	88.2	88.8	1.126
Coke	84.7	84.0	84.0	1.190
Gas	94.6	99.7	(1)	
Petroleum products	73.3	63.6	61.0	1.639
Metals and metal products	105.0	95.4	94.3	1.060
Iron and steel	97.9	91.7	90.7	1.103
Nonferrous metals	105.1	78.1	73.5	1.361
Agricultural implements	98.3	95.0	94.9	1.054
Automobiles	112.2	105.5	105.5	.948
Other metal products	98.5	98.4	98.4	1.016
Building materials	96.7	90.0	88.9	1.125
Lumber	94.0	85.3	83.3	1.200
Brick	89.1	83.0	82.9	1.206
Cement	94.6	91.7	91.7	1.091
Structural steel	99.6	86.8	84.3	1.186
Paint materials	90.7	88.7	87.1	1.148
Other building materials	105.7	99.6	99.4	1.006
Chemicals and drugs	93.4	88.9	87.8	1.139
Chemicals	99.1	93.8	92.5	1.081
Drugs and pharmaceuticals	69.8	67.9	67.3	1.486
Fertilizer materials	90.7	85.3	84.3	1.186
Mixed fertilizers	97.3	94.1	93.1	1.074
House-furnishing goods	97.2	96.2	96.2	1.040
Furniture	96.7	96.5	96.5	1.036
Furnishings	97.5	95.9	95.8	1.044
Miscellaneous	81.3	74.5	71.7	1.395
Cattle feed	120.5	102.0	94.8	1.055
Paper and pulp	88.2	85.2	83.8	1.193
Rubber	43.9	25.9	23.6	4.237
Automobile tires	55.3	52.2	52.0	1.923
Other miscellaneous	109.0	103.3	97.2	1.029
Raw materials	99.1	84.8	81.1	1.233
Semimanufactured articles	96.0	82.0	79.7	1.255
Finished products	97.8	88.9	86.7	1.153
Nonagricultural commodities	95.5	86.3	84.4	1.185
All commodities, less farm products and foods	92.9	85.7	84.3	1.186

[1] Data not yet available.

Wholesale Prices in the United States and in Foreign Countries, 1923 to June, 1930

IN THE following table the more important index numbers of wholesale prices in foreign countries and those of the United States Bureau of Labor Statistics have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the sources from which the information has been drawn, in most cases being the year 1913 or some other pre-war period. Only general comparisons can be made from these figures, since, in addition to differences in the base periods, there are important differences in the composition of the index numbers themselves.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES

Country	United States	Canada	Austria	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Computing agency	Bureau of Labor Statistics	Dominion Bureau of Statistics (revised)	Federal Statistical Bureau	Ministry of Industry and Labor	Central Bureau of Statistics (revised index)	Statistical Department	Central Bureau of Statistics (revised)	General Statistical Bureau	Federal Statistical Bureau	Riccardo Bachi (revised)
Base period	1926	1926	January–June, 1914	April, 1914	July, 1914	1913	1926	1913	1913	1913
Commodities	550	502	47	132	69	118	139	45	400	138
Year and month										
1923	100.6	98.0	124	497	977	----	----	419	----	[1] 503.9
1924	98.1	99.4	136	573	997	----	----	488	137.3	[1] 497.4
1925	103.5	102.6	136	558	1008	210	----	550	141.8	[1] 612.0
1926	100.0	100.0	123	744	954	163	100	703	134.4	[1] 618.2
1927	95.4	97.7	133	847	979	153	101	617	137.6	[1] 466.7
1928	97.7	96.4	130	843	979	153	102	620	140.0	[1] 453.1
1929	96.5	95.6	130	851	924	150	98	611	137.2	[1] 439.7
1923										
January	102.0	----	----	434	991	----	----	387	----	516.1
April	103.9	----	----	480	1012	----	----	415	----	525.7
July	98.4	----	----	504	949	----	----	407	----	503.9
October	99.4	----	----	515	960	----	----	421	----	499.6
1924										
January	99.6	----	----	580	974	----	----	494	----	504.4
April	97.3	----	----	555	1008	----	----	450	----	510.3
July	95.6	----	----	566	953	----	----	481	----	497.4
October	98.2	----	----	555	999	----	----	497	----	522.0
1925										
January	102.9	----	----	559	1045	243	----	514	----	568.2
February	104.0	----	----	551	1048	240	----	515	----	571.1
March	104.2	----	----	546	1034	236	----	514	----	571.2
April	101.9	----	----	538	1020	230	----	513	----	570.1
May	101.6	----	----	537	1006	227	----	520	----	571.2
June	103.0	----	----	552	998	223	----	543	----	590.9
July	104.3	----	----	559	1009	212	----	557	----	612.0
August	103.9	----	----	567	993	197	----	557	----	630.6
September	103.4	----	----	577	996	186	----	556	----	621.5
October	103.6	----	----	575	989	179	----	572	----	617.1
November	104.5	----	----	569	977	176	----	605	----	612.3
December	103.4	----	----	565	977	176	----	633	----	613.8

[1] July.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

Country	United States	Canada	Austria	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Computing agency	Bureau of Labor Statistics	Dominion Bureau of Statistics (revised)	Federal Statistical Bureau	Ministry of Industry and Labor	Central Bureau of Statistics (revised index)	Statistical Department	Central Bureau of Statistics (revised)	General Statistical Bureau	Federal Statistical Bureau	Riccardo Bachi (revised)
Base period	1926	1926	January-June, 1914	April, 1914	July, 1914	1913	1926	1913	1913	1913
Commodities	550	502	47	132	69	118	139	45	400	138
Year and month										
1926										
January	103.6	103.0	122	560	966	172	----------	634	135.8	608.0
February	102.1	102.1	120	556	950	165	----------	636	134.3	603.5
March	100.4	101.3	119	583	938	158	----------	632	133.1	592.3
April	100.1	101.2	119	621	923	157	----------	650	132.7	590.0
May	100.5	100.2	118	692	928	158	----------	688	132.3	595.8
June	100.5	100.2	124	761	926	157	----------	738	131.9	604.9
July	99.5	100.2	126	876	948	158	----------	836	133.1	618.2
August	99.0	99.1	126	836	963	162	----------	769	134.0	632.5
September	99.7	98.5	123	859	973	162	----------	787	134.9	622.0
October	99.4	98.1	125	856	972	178	----------	751	136.2	596.7
November	98.4	97.6	128	865	978	170	----------	684	137.1	594.2
December	97.9	97.9	127	860	978	158	----------	627	137.1	573.6
1927										
January	96.6	97.8	130	856	979	157	100	622	135.9	558.2
February	95.9	97.6	130	854	975	156	101	632	135.6	555.8
March	94.5	97.3	133	858	976	153	101	641	135.0	544.7
April	93.7	97.5	135	846	979	152	100	636	134.8	521.3
May	93.7	98.5	137	848	988	152	100	628	137.1	496.2
June	93.8	98.9	142	851	990	152	101	622	137.9	473.4
July	94.1	98.6	140	845	992	152	101	621	137.6	466.7
August	95.2	98.3	133	850	983	153	102	618	137.9	465.4
September	96.5	97.1	130	837	975	153	101	600	139.7	465.4
October	97.0	97.2	129	839	966	154	101	587	139.8	467.5
November	96.7	96.9	127	838	967	154	103	594	140.1	466.0
December	96.8	97.3	127	841	975	154	103	604	139.6	462.9
1928										
January	96.3	96.9	129	851	982	153	102	607	138.7	463.5
February	96.4	96.8	128	848	985	152	102	609	137.9	461.3
March	96.0	97.7	129	848	978	153	103	623	138.5	463.9
April	97.4	98.3	131	847	984	154	103	624	139.5	464.4
May	98.6	97.7	131	844	987	155	103	632	141.2	464.9
June	97.6	97.1	133	844	986	155	103	626	141.3	461.7
July	98.3	96.2	133	841	979	155	103	624	141.6	453.1
August	98.9	95.4	133	831	996	154	103	617	141.5	456.2
September	100.1	95.5	131	830	986	151	101	620	139.9	457.8
October	97.8	95.4	129	835	971	150	101	617	140.1	463.3
November	96.7	94.9	128	847	957	151	101	626	140.3	465.6
December	96.7	94.5	127	855	955	151	101	624	139.9	464.4
1929										
January	97.2	94.5	128	867	953	151	100	630	138.9	461.2
February	96.7	95.7	130	865	950	159	100	638	139.3	462.7
March	97.5	96.1	133	869	964	154	100	640	139.6	461.1
April	96.8	94.1	134	862	963	150	99	627	137.1	456.0
May	95.8	92.4	135	851	948	148	98	623	135.5	451.6
June	96.4	92.6	134	848	917	146	98	611	135.1	446.6
July	98.0	96.0	132	858	922	149	97	613	137.8	439.7
August	97.7	98.1	132	850	916	150	97	597	138.1	437.4
September	97.5	97.3	128	846	902	150	96	597	138.1	437.0
October	96.3	96.7	127	838	895	149	96	590	137.2	435.8
November	94.4	95.8	125	834	888	147	95	584	135.5	430.8
December	94.2	96.2	123	823	876	146	95	576	134.3	424.5
1930										
January	93.4	95.6	125	808	[1] 126.1	143	94	564	132.3	417.4
February	92.1	94.0	123	791	124.2	140	93	563	129.3	408.6
March	90.8	91.9	121	774	121.5	136	92	563	126.4	399.7
April	90.7	91.7	119	777	121.0	135	92	548	126.7	396.1
May	89.1	89.9	118	774	120.2	132	90	542	125.7	390.3
June	86.8	88.0	121	750	119.1	130	90	----------	----------	380.6

[1] Gold basis.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

Country	Netherlands	Norway	Spain	Sweden	Switzerland	United Kingdom	Australia	New Zealand	South Africa	Japan	China	India
Computing agency	Central Bureau of Statistics	Central Bureau of Statistics	Institute of Geography and Statistics	Chamber of Commerce	Federal Labor Department	Board of Trade	Bureau of Census and Statistics	Census and Statistics Office (revised)	Office of Census and Statistics	Bank of Japan, Tokyo	National Tariff Commission, Shanghai	Labor Office, Bombay
Base period	1913	1913	1913	1913	July, 1914	1913	July, 1914	1913	1913	1913	1913	July, 1914
Commodities	[3] 48	95	74	160	118	150	92	180	188	56	[4] 117	44
Year and month												
1923	151	232	172	163	181	158.9	170	158	127	199	156.4	181
1924	156	268	183	162	175	166.2	165	165	129	206	153.9	182
1925	155	253	188	161	162	159.1	162	161	128	202	159.4	163
1926	145	198	181	149	145	148.1	161	154	123	179	164.1	149
1927	148	167	172	146	142	141.4	159	146	124	170	170.4	147
1928	149	161	168	148	145	140.3	157	147	121	171	160.7	146
1929	142	153	171	140	141	136.5	.....	147	116	166	163.7	145
1923												
January	157	223	170	163	.....	157.0	163	.....	131	184	152.7	181
April	156	229	174	168	.....	162.0	167	.....	126	196	157.7	180
July	145	231	170	162	.....	156.5	180	.....	124	192	155.4	178
October	148	235	171	161	.....	158.1	171	.....	125	212	156.1	181
1924												
January	156	251	178	161	.....	165.4	174	.....	131	211	155.8	188
April	154	263	184	161	.....	164.7	166	.....	126	207	153.7	184
July	151	265	182	157	.....	162.6	163	.....	125	195	151.5	184
October	161	273	186	167	.....	170.0	163	.....	133	213	152.8	181
1925												
January	160	279	191	169	.....	171.1	163	166	130	214	159.9	173
February	158	281	192	169	.....	168.9	162	162	.....	210	159.2	173
March	155	279	193	168	.....	166.3	160	162	.....	204	160.3	171
April	151	273	190	163	.....	161.9	158	162	130	202	159.3	165
May	151	262	191	162	.....	158.6	159	162	.....	199	157.8	164
June	153	260	187	161	.....	157.2	162	162	.....	200	157.3	160
July	155	254	188	161	.....	156.9	162	161	127	198	162.8	158
August	155	249	184	159	.....	156.2	162	161	.....	200	160.3	160
September	155	237	185	157	.....	155.1	162	160	.....	201	160.2	157
October	154	223	187	154	.....	153.9	163	162	124	200	159.0	158
November	154	220	186	155	.....	152.7	165	161	.....	198	158.4	160
December	155	220	187	156	.....	152.1	160	160	.....	194	158.1	154
1926												
January	153	214	186	153	153	151 3	161	159	124	192	164.0	154
February	149	211	186	152	147	148.8	160	159	.....	188	163.0	151
March	145	205	183	149	146	144.4	163	157	.....	184	164.4	150
April	143	199	179	150	145	143.6	168	156	120	181	162.8	151
May	143	197	179	151	143	144.9	167	156	.....	177	159.7	151
June	144	194	177	150	143	146.4	163	155	.....	177	155.8	150
July	141	192	178	148	145	148.7	162	156	122	179	156.9	149
August	139	193	180	147	142	149.1	162	154	.....	177	160.5	148
September	140	193	178	146	142	150.9	158	153	.....	176	164.2	149
October	143	198	179	148	144	152.1	154	153	127	174	171.1	147
November	147	199	185	148	142	152.4	155	151	.....	171	174.4	146
December	147	184	186	150	142	146.1	155	153	.....	170	172.0	146

[3] 52 commodities in 1920; 58 commodities from August, 1920, to December, 1921.
[4] 147 items.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

Country	Netherlands	Norway	Spain	Sweden	Switzerland	United Kingdom	Australia	New Zealand	South Africa	Japan	China	India
Computing agency	Central Bureau of Statistics	Central Bureau of Statistics	Institute of Geography and Statistics	Chamber of Commerce	Federal Labor Department	Board of Trade	Bureau of Census and Statistics	Census and Statistics Office (revised)	Office of Census and Statistics	Bank of Japan, Tokyo	National Tariff Commission, Shanghai	Labor Office, Bombay
Base period	1913	1913	1913	1913	July, 1914	1913	July, 1914	1913	1913	1913	1913	July, 1914
Commodities	48	95	74	160	118	150	92	180	188	56	117	44
Year and month												
1927												
January	145	174	184	146	141	143.6	154	151	128	170	172.8	146
February	146	172	180	146	141	142.6	153	147	-------	171	172.0	148
March	144	167	179	145	141	140.6	150	147	-------	171	174.7	146
April	143	164	177	143	140	139.8	151	147	126	170	173.1	145
May	145	162	172	145	141	141.1	152	145	-------	171	171.3	146
June	149	166	171	146	140	141.8	155	146	-------	172	169.3	147
July	151	165	168	146	140	141.1	161	146	120	170	171.0	147
August	149	167	168	146	142	140.9	165	146	-------	167	170.8	148
September	150	167	169	148	144	142.1	170	146	-------	169	171.8	148
October	150	165	169	147	145	141.4	173	146	122	170	168.7	146
November	151	166	168	148	147	141.1	166	147	-------	168	165.7	144
December	151	166	169	148	146	140.4	162	148	-------	168	163.5	143
1928												
January	153	164	166	148	145	141.1	163	150	123	169	163.1	141
February	150	163	166	147	144	140.3	160	147	-------	169	164.3	142
March	152	164	165	149	145	140.8	160	147	-------	169	163.4	140
April	153	162	166	151	146	142.9	162	147	121	170	163.1	142
May	152	162	164	152	145	143.6	159	148	-------	171	164.5	145
June	153	161	164	151	145	142.6	158	148	-------	169	160.0	149
July	148	162	164	150	144	141.1	157	148	119	169	159.2	147
August	144	162	166	149	144	139.3	154	147	-------	170	157.2	146
September	145	158	168	146	144	137.6	153	148	-------	174	156.2	148
October	146	157	174	145	145	137.9	152	149	120	174	158.8	150
November	148	157	176	145	145	137.9	152	150	-------	173	159.2	149
December	148	157	175	145	144	138.3	154	149	-------	174	159.9	145
1929												
January	146	154	171	144	143	138.3	157	147	120	172	160.1	148
February	146	155	173	145	143	138.4	156	146	-------	171	162.4	150
March	147	155	174	144	142	140.1	157	146	-------	171	164.2	147
April	144	154	174	141	140	138.8	158	146	117	170	161.2	144
May	142	152	171	140	139	135.8	156	147	-------	169	161.7	141
June	141	151	170	139	139	135.6	158	147	-------	168	162.6	143
July	141	152	169	140	143	137.4	159	147	115	166	162.7	145
August	142	154	170	141	143	135.8	160	148	-------	165	164.7	146
September	141	154	171	140	142	135.8	162	148	-------	164	167.1	147
October	140	154	172	138	142	136.1	161	148	113	163	168.0	146
November	137	152	171	135	140	134.0	158	147	-------	160	164.7	143
December	135	152	172	134	139	132.5	154	146	-------	155	164.7	141
1930												
January	131	150	172	131	136	131.0	151	147	107	152	169.6	139
February	126	147	172	128	133	127.8	147	146	-------	151	174.7	137
March	122	146	172	125	131	124.5	144	146	-------	148	173.9	137
April	122	145	-------	124	129	123.7	146	146	104	146	174.2	134
May	118	144	-------	123	128	122.0	-------	146	-------	143	173.4	130
June	118	143	-------	123	126	120.7	-------	145	-------	137	185.9	-------

IMMIGRATION AND EMIGRATION

Statistics of Immigration for June, 1930

By J. J. Kunna, Chief Statistician United States Bureau of Immigration

THE statistics for June, 1930, show 30,703 aliens admitted to the United States, 805 aliens debarred from entering the country, and 25,284 aliens departed for foreign countries. In the same month 32,284 American citizens returned and 40,103 departed. The inward movement of aliens and citizens shows a decrease, while the outward movement of both aliens and citizens shows an increase, as compared with the other 11 months of the fiscal year ended June 30, 1930.

The total number of alien arrivals during the past fiscal year in whose cases final action was taken was 454,447. After examination 8,233, or 1.8 per cent, of these arrivals were found inadmissible for various causes under the immigration laws and were accordingly debarred from entering the country. The number of admissions for the year was therefore 446,214 as against 479,327 in the previous year, 500,631 in 1928, and 538,001 in 1927. Of the total number of aliens admitted during the past year 204,514 were nonimmigrants (i. e., returning from a temporary sojourn abroad or coming here for a short visit). Our true immigration for the year was therefore 241,700 as compared with 279,678 for the previous year, a decrease of 37,978, or 13.6 per cent. With the exception of two World War years, 1918 and 1919, with 110,618 and 141,132 immigrants, respectively, immigration in 1930 was the smallest for any fiscal year since 1898, when 229,299 immigrants arrived.

Of the 241,700 immigrant aliens admitted during the fiscal year1930 over three-fifths came from European countries, 147,438 giving the Continent as their last permanent residence. Germany, with 26,569 continued to contribute the largest number from overseas—more than any other two countries of Europe, exclusive of the Irish Free State, Italy, and Scotland. Italy sent 22,327 immigrants, the next largest number coming from abroad; 17,971 came from the Irish Free State and 16,692 from Scotland, while England contributed 12,884; Poland, 9,231; Northern Ireland, 5,474; Czechoslovakia, 4,438; France, 3,713; Sweden, 3,109; the Netherlands, 2,738; and Norway, 2,649. These countries supplied 127,795, or 86.7 per cent, of the immigrants from Europe last year.

European immigration dropped from 158,598 in the fiscal year 1929 to 147,438 in 1930, a decline of 11,160, or 7 per cent, that from Germany showing the largest decrease of 20,182, with Sweden also showing a decrease of 5,768, or 65 per cent, the largest proportional decrease for European countries. Immigration from Norway likewise declined 3,328, or 55.7 per cent, and that from France decreased 715, or 16.1 per cent. The drop in immigration from these four

countries was mainly due to the reduction in the annual quotas allotted to them under the national origin plan.

The countries of Europe sending a larger number of immigrant aliens during the past year than during the previous year were England and Scotland, the increase for the former being 4,876 and for the latter 4,800. Other European countries showing an increase were Italy with 4,319; Northern Ireland, 3,255; the Netherlands, 996; Irish Free State, 299; Poland, 229; and Czechoslovakia, 27; with the miscellaneous countries of Europe having a net increase of only 62.

New World countries furnished 88,104 and Asia 4,535 of the permanent immigration of the year just ended, the two principal sources being Canada, 63,502, and Mexico, 12,703. Practically the same number of immigrants came from Canada in 1930 as during the preceding year, immigration from that country showing only a small decrease of 938, or 1.5 per cent, but that from Mexico dropped 27,451, or 68.4 per cent.

Of the 241,700 immigrants admitted during the past fiscal year 117,026 were males and 124,674 females; 40,777 were children under 16 years of age and 57,736 were from 16 to 21 years, while 71,570 ranged in age from 22 to 29 years, 32,043 from 30 to 37 years, 15,710 from 38 to 44 years, and 23,864 from 45 to 60 years and over. The single immigrants numbered 155,829; married, 77,560; widowed, 7,764; and divorced, 547. The principal nationalities among these immigrants were the English (34,960), Irish (34,947), German (34,415), Scotch (28,117), Italian (23,316), French (13,771), Mexican (11,915), Hebrew (11,526), and Scandinavian—Norwegians, Danes, and Swedes—(8,478). These nine races comprised 83.3 per cent of the total immigrants for the year. In the previous fiscal year the Germans led the list with 55,631 and the Mexicans were second with 38,980, followed by the Irish with 30,922, English with 29,846, Scotch with 21,926, Scandinavians wih 19,428, Italians with 19,083, French with 16,957, and Hebrews with 12,479, comprising a total of 245,252, or 87.7 per cent, of the immigration for that year. A comparison of the principal races for the last two fiscal years, those showing an increase in 1930 were the English, Irish, Italians, and Scotch; those showing a decrease were the French, Germans, Hebrews, Mexicans, and Scandinavians.

The major portion of the new arrivals continues to settle in the eastern section of the country. Of the 241,700 immigrants admitted in 1930, 148,538 were destined to the North Atlantic States, 55,412 to the North Central States, 4,271 to the South Atlantic, and 7,926 to the South Central, while 25,080 went to the Western States and 473 to the outlying possessions, including Alaska, Hawaii, Porto Rico, Virgin Islands, and Philippine Islands. The Empire State, always the settling ground for the greatest number of newcomers, received over one-third of the total immigrants for the year, 84,734 giving New York State as their intended future permanent residence. Massachusetts, the most prominent of the New England States in the destination of immigrants, received 18,127 new arrivals during the year, and Connecticut with 5,476 was second in the list for that section of the country. In the North Central division, Michigan attracted 22,149 immigrants last year, Illinois 15,012, and Ohio 7,813.

Four-fifths, or 6,424 of the immigrants destined to the South Central States, gave Texas as their intended future permanent residence; the vast majority of these were Mexicans coming in over the southern land border.

The unskilled workers comprise the largest group among the wage-earning immigrants admitted last year, 29,073 giving their occupation at the time of arrival as that of servant, 16,447 as common laborer, and 13,736 as farm laborer. Immigrants in skilled occupations, numbering 45,572, rank second among those having an occupational status, and the professional class, with 9,888, third. There were 21,390 aliens in the miscellaneous classes, including agents, bankers, merchants, and dealers, fishermen, etc.; and immigrants listed as having no occupation numbered 105,594, or 43.7 per cent of the total for the year. During the previous year 1929, the latter class, being mostly women and unmarried children, numbered 119,694, or 42.8 per cent of the total immigrants for that year.

The number of emigrant aliens leaving the United States for intended future permanent residence in some foreign country declined from 69,203 in 1929 to 50,661 in the year just ended, a decrease of 18,542, or 26.8 per cent. Over one-half of these permanent departures last year went to Europe, 29,538 emigrants giving countries on the Continent as their future home, while 15,773 were destined to countries in the Western Hemisphere, 4,792 to Asia, and 558 to Africa, Australia, New Zealand, and the Pacific islands.

The ratio of men to women among these outgoing aliens was about 6 to 4 and about 60 per cent were in the prime of life. Of the 50,661 emigrants departed in 1930 (which was the smallest exodus since 1908, when the outward movement of aliens by classes was first recorded), 32,565 were males and 18,096 females; 3,479 were under 16 years of age and 3,530 were from 16 to 21 years, while 13,001 ranged in age from 22 to 29 years, 11,002 from 30 to 37 years, and 6,666 from 38 to 44 years; the remaining 12,983 gave their age at the time of departure as from 45 to 60 years and over. The single emigrants last year numbered 23,295, the married 25,242, and the widowed and divorced 2,124. As to the occupational status of these departures, 12,546 were laborers, 7,909 were mechanics and other skilled workers, 3,992 were servants, 2,784 were of the professional class, 6,128 were of the miscellaneous classes, principally merchants and farmers, and 17,302 had no occupation, being mostly women and unmarried children.

Aliens refused admission to the United States during the fiscal year ended June 30, 1930, totaled 8,233, of which number 6,380 were rejected at the international land borders and 1,853 at the seaports. At New York, our principal seaport where the majority of the oversea arrivals continue to land, 290,376 aliens applied for admission, of whom 1,025 were debarred from entering, or less than 4 per 1,000 applicants. About one-half of 1 per cent of the aliens arriving at all the seaports last year were debarred.

A high-water mark in deportations was reached last year when a total of 16,631 aliens were deported from the United States under warrant proceedings, exceeding the previous peak number of 12,908 for 1929 by 3,723, or 28.8 per cent. During these 2 years a greater number of deportations were effected than during the entire 9 years from 1915 to 1923 or during the 23 years immediately preceding the World War, 1892 to 1914.

The principal causes for deportations in the year 1930 were: Entering without proper immigration visa, 6,694; unable to read (over 16 years of age), 2,696; criminal and immoral classes, 2,456; physically or mentally defective, 1,042; and remained longer than permitted, 2,019. Over one-half of the deportees last year were sent to Mexico, 8,518 going to that country, while 2,609 were sent to Canada and 458 to other America; 4,502 were returned to European countries, principally Germany, England, Italy, Poland, and Spain; 258 were sent to China and 203 to other Asia; and 83 to Africa, Australia, and New Zealand. Of the total deportees, 8,438 were Mexican, 1,151 English, 817 German, 689 French, 631 Irish, 587 Italian, these six nationalities comprising nearly four-fifths of the total.

The statistics covering admissions under the immigration act of 1924 show that of the 446,214 aliens entering the country during the past fiscal year, 141,497 were immigrants charged to the quota, 99,154 were returning residents, 62,919 were natives of nonquota countries, mainly Canada and Mexico, 70,823 were temporary visitors for business or pleasure, 27,991 were passing through the country, and 32,105 were husbands, wives, and unmarried children under 21 years of age, of American citizens. The remainder were of the miscellaneous classes under the act, principally Government officials, students, aliens to carry on trade under existing treaty, ministers, professors, etc. Of the total aliens admitted 236,285 were males and 209,929 females, and of the total aliens departed last year 166,655 were males and 105,770 females, leaving a net increase of 69,630 males and 104,159 females.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1, 1929, TO JUNE 30, 1930

Period	Inward					Aliens debarred from entering [1]	Outward					Aliens deported after landing [2]
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens departed	Total	
	Immigrant	Non-immigrant	Total				Emigrant	Non-emigrant	Total			
1929												
July	20,068	15,749	35,817	37,636	73,453	847	5,086	23,084	28,170	56,339	84,509	1,261
August	22,778	19,007	41,785	70,783	112,568	802	5,571	23,723	29,294	70,551	99,845	1,411
September	28,020	28,517	56,537	85,946	142,483	719	5,150	21,398	26,548	49,429	75,977	1,205
October	26,740	26,072	52,812	47,757	100,569	659	4,907	19,597	24,504	39,767	64,271	1,600
November	21,522	14,798	36,320	25,129	61,449	591	3,053	13,345	16,398	20,413	36,811	1,286
December	17,842	11,477	29,319	21,177	50,496	571	4,880	18,746	23,626	27,404	51,030	1,546
1930												
January	14,767	11,142	25,909	23,985	49,894	630	3,947	20,860	24,807	31,991	56,798	1,275
February	13,585	10,706	24,291	34,234	58,525	514	3,180	14,677	17,857	33,796	51,653	1,089
March	19,759	15,098	34,857	40,727	75,584	649	2,900	12,759	15,659	37,930	53,589	1,511
April	22,261	18,663	40,924	32,115	73,039	757	3,947	14,917	18,864	26,707	45,571	1,850
May	19,414	17,526	36,940	25,487	62,427	689	3,720	17,694	21,414	27,593	49,007	1,574
June	14,944	15,759	30,703	32,284	62,987	805	4,320	20,964	25,284	40,103	65,387	1,023
Total	241,700	204,514	446,214	477,260	923,474	8,233	50,661	221,764	272,425	462,023	734,448	16,631

[1] These aliens are not included among arrivals, as they were not permitted to enter the United States.
[2] These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

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[1] Covers only material published since March, 1925; for previous material see Monthly Labor Review, March, 1925, pp. 201–232.

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Review of International Cooperation, London, January, 1929, pp. 15–18; February, 1929, pp. 68–75; March, 1929, pp. 108–115.

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ILLINOIS.—Department of Mines and Minerals. *Forty-eighth coal report of Illinois, 1929. Springfield, 1930. 252 pp.*

Coal-mining statistics from the volume are reproduced in this issue.

MASSACHUSETTS.—Department of Labor and Industries. *Annual report for the year ending November 30, 1929. Boston, 1930. 131 pp.*

A digest of the report on occupational diseases is given in this issue of the Review.

OHIO.—Department of Industrial Relations. Division of Safety and Hygiene. *Proceedings of All Ohio Safety Congress, held under the auspices of the Industrial Commission of Ohio, Columbus, Ohio, January 14–16, 1930. Columbus, 1930. 523 pp.*

PORTO RICO.—Legislature. Committee to investigate the industrial and agricultural uneasiness and restlessness causing unemployment in Porto Rico. *First report, February 3, 1930. San Juan, 1930. 285 pp.; charts. (In Spanish and English.)*

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RHODE ISLAND.—Department of Labor. *Report for the year 1929. Providence, [1930?]. 46 pp.*

A summary of the operation of the State workmen's compensation act, based on this report, is given in this issue.

UNITED STATES.—Department of Commerce. Bureau of Mines. *Bulletin 314: Quarry accidents in the United States during the calendar year 1927, by William W. Adams. Washington, 1929. 107 pp.*

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—— —— Bureau of the Census. *Alphabetical index of occupations, Fifteenth Census of the United States, 1930. Washington, 1930. 527 pp.*

—— —— —— *Classified index of occupations, Fifteenth Census of the United States, 1930. Washington, 1930. 205 pp.*

—— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 517: Decisions of courts and opinions affecting labor, 1927–1928. Washington, 1930. 516 pp.*

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A summary of this study was published in the Labor Review for February, 1930 (pp. 17–24).

—— —— Children's Bureau. *Publication No. 198: Children in fruit and vegetable canneries—a survey in seven States, by Ellen Nathalie Matthews. Washington, 1930. 227 pp., illus.*

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ALBERTA (CANADA).—Bureau of Labor. *Annual report, for the fiscal year 1929–30. Edmonton, 1930. 23 pp.; charts.*

Contains, among other data, classified weekly wage rates for 59,507 wage earners including 703 apprentices, and statistics regarding employment service activities.

AUSTRALIA (COMMONWEALTH AND STATES).—*Report of Fourth Conference on Industrial Hygiene, Canberra, March 13, 1930. Canberra, 1930. 29 pp.*

Contains tables of the subjects considered, a summary of the health activities of the various States, and appendixes dealing with industrial accidents and industrial medical services.

BELGIUM.—Caisse Générale d'Épargne et de Retraite. *Compte rendu des opérations et de la situation, 1929.* [Brussels, 1930?] 92 pp.

This report of the Belgian General Savings and Retirement Fund for 1929 covers the operations of the savings, old-age retirement, life insurance, and accident insurance funds, and the social work covered by loans to societies and communes for the provision of cheap dwellings for workingmen, agricultural loans, and assistance to war invalids.

BOMBAY (INDIA).—Labor Office. *Report on an inquiry into wages and hours of labor in the cotton-mill industry, 1926. Bombay, 1930. 172 pp.*

Summarized in this issue.

BRITISH COLUMBIA (CANADA).—Royal Commission on State Health Insurance and Maternity Benefits. *Progress report, presented to the Legislature, February 11, 1930. Victoria, 1930. 30 pp.*

The commission expresses its conviction that there is justification and also a general demand for the inauguration in British Columbia of an equitable and economically sound public health insurance scheme.

CANADA.—Department of Labor. *Nineteenth annual report on labor organization in Canada (for the calendar year 1929). Ottawa, 1930. 248 pp.; charts.*

Statistics from this report are given in this issue.

FEDERATED MALAY STATES.—Labor Department. *Annual report for the year 1929. Kuala Lumpur, 1930. 30 pp.*

Includes statistics of Indian immigration, recruited laborers, labor conditions, wages, number of laborers of different nationalities employed on estates and in mines, and fatal accidents.

GERMANY.—Reichskohlenrat. *Statistische Übersicht über die Kohlenwirtschaft im Jahre 1929. Berlin, 1930. 110 pp.; charts.*

A review of the coal industry in 1929 in Germany and other countries, including production, exports and imports, wages and prices.

—— Reichsversicherungsamt. *Beilage zu den Amtlichen Nachrichten für Reichsversicherung, Jahrgang 1930, Nr. 6: Gesundheitsfürsorge in der Invalidenversicherung 1929. Berlin, 1930. 152 pp.; charts.*

Gives a review of health care during 1929 under the invalidity insurance act of Germany, which includes general measures on care for public health and cost of these measures in classified cases, such as tuberculosis, care of the teeth, care for dependents, etc.

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Reviewed in this issue.

HESSE (GERMANY).—Gewerbeaufsichtsamt. *Jahresbericht der Hessischen Gewerbeaufsichtsämter für das Jahr 1929. Berlin, 1930. 95 pp.*

Contains information in regard to the industrial and labor conditions in the State of Hesse during 1929, including chapters on wage earners and salaried employees, protection against industrial hazards, trade agreements, wages, hours, employment offices, etc.

INDIA (BOMBAY).—Royal Commission on Indian Labor. *Memorandum from the Government of Bombay. Bombay, 1930. 327 pp.*

A report on labor conditions in the Presidency of Bombay, prepared for the use of the commission. It is explained that because of lack of time it was not possible to make any original investigation into the subject and that the report is therefore derived from "published reports of the Labor Office and other printed matter in the possession of the Labor Office, from unpublished data and from the personal knowledge of the staff of the Labor Office with the assistance, in several important sections, of the chief inspector of factories."

INTERNATIONAL LABOR OFFICE.—*Hours of work in coal mines. (Item III on agenda of International Labor Conference, 14th session, Geneva, 1930, report III.) Geneva, 1930. 108 pp.*

—— *Hours of work in coal mines (item III on agenda of International Labor Conference, 14th session, Geneva, 1930, report III, supplement): Inquiry into the lignite industry in Europe—survey of the replies of the Governments. Geneva, 1930. 88 pp.*

—— *Studies and reports, series K (agriculture), No. 10: The law on the contract of employment of agricultural workers in Austria, Germany, and Hungary. Geneva, 1930. 63 pp.*

LEIPZIG (GERMANY).—Statistisches Amt. *Statistisches Jahrbuch der Stadt Leipzig, 1919/29. Leipzig, 1930. 180 pp.*

Contains statistical information in regard to the city of Leipzig, Germany, for the decade of 1919–1929, including housing, welfare work, labor unions, social insurance, unemployment, and other labor conditions.

MOSCOW (SOVIET RUSSIA (R. S. F. S. R.)).—Statistical Office. *Moscow and Moscow Province, statistical economic reference book, 1926/27–1928/29. Moscow, 1930. 600 pp. (In Russian.)*

Contains statistical information in regard to the city of Moscow and Moscow Province during 1926–27 to 1928–29, including labor conditions, such as hours, wages, employment, social insurance, family budgets, etc.

—— —— *Schools of social education in the city and Province of Moscow, by V. A. Popov. Moscow, 1930. 175 pp. (In Russian.)*

Contains text and statistics relating to the schools of social education in the city and Province of Moscow, including number of schools, attendance, teaching staff, school buildings, etc.

NEW SOUTH WALES (AUSTRALIA).—Director-General of Public Health. *Report for the year 1928. Sydney, 1930. 126 pp.; charts.*

The report includes an account of a special study of atmospheric conditions in textile mills and methods of humidification and their efficiency.

ONTARIO (CANADA).—Department of Labor. *Tenth annual report, 1929. Toronto, 1930. 93 pp.; chart.*

Employment was substantially greater in the 12 months ending October 31, 1929, than in any other year since 1920. A considerable number of advances in wage rates are recorded for 1929 in the building, metal, and printing trades. Among the several laws of interest to labor passed in the Province in the same year was the act to provide for old-age pensions.

SOUTHERN RHODESIA.—Statistical Bureau. *Official yearbook of the Colony of Southern Rhodesia, covering mainly the period 1924–1928. No. 2. Salisbury, 1930. 862 pp.; maps, charts.*

The first yearbook of the Colony was issued in 1924 and has long been out of print. In April, 1928, the Government Statistical Bureau was established, and undertook the compilation of the present issue, covering the interval between the two dates and extending the scope of the survey. The yearbook includes historical statistics dealing with the main features of the colony's progress, summarized statistics for a wide range of subjects for the period 1924–1928, and more detailed statistics for the latest year available, usually 1928. Includes data on retail prices and cost of living.

SWITZERLAND.—Bureau Fédéral des Assurances. *Rapport sur les enterprises privées en matière d'assurance en Auisse en 1928. Berne, 1930. 101*, 137 pp.; charts.*

Report of the Swiss Federal Insurance Bureau upon the operation of private insurance societies in that country for 1928.

VIENNA (AUSTRIA).—Kammer für Arbeiter und Angestellte. *Bericht der Lehrlingsschutzstellen für das Jahr 1929. Vienna, 1930. 43 pp.*

Contains a report on the activities during 1929, of the offices for the protection of apprentices, including the organization of these offices, apprenticeship contracts, length of apprenticeship, apprenticeship legislation, hours of labor, wages, insurance, various court cases, etc.

—— Magistratsabteilung für Statistik. *Statistisches Jahrbuch der Stadt Wien 1929. Vienna, 1930. 286 pp.*

Contains statistical information in regard to the city of Vienna for the year 1929, including chapters on public health, social welfare work, wages, social insurance, housing, and labor conditions.

WESTERN AUSTRALIA (AUSTRALIA).—Government Statistician. *Statisgical register for the year 1928–29. Part VI: Industrial establishments (exclusive of mines), etc. Perth, 1930. 29 pp.*

Unofficial

BALDERSTON, C. C. *Group incentives: Some variations in the use of group bonus and gang piecework. Philadelphia, University of Pennsylvania Press, 1930. 171 pp.; charts. (Research studies IX, Industrial Research Department, Wharton School of Finance and Commerce, University of Pennsylvania.)*

BARDSWELL, NOEL DEAN. *Work centers for the tuberculous: The experience of the Spero Firewood Factory, London. London, John Bale, Sons & Danielsson (Ltd.), 1930. 64 pp.*

This is an account of an experiment in furnishing work for tuberculous workers, mainly ex-service men. The report deals with the problems involved in providing men with steady employment while giving due consideration to their physical disability and social welfare. Statements are given of production costs and wages.

BURNHAM, GRACE M. *Work or wages. New York, International Pamphlets (No. 4), 799 Broadway, 1930. 39 pp.*

CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING. *Bulletin No. 25: The social philosophy of pensions, with a review of existing pension systems for professional groups, by Henry S. Pritchett. New York, 522 Fifth Avenue, 1930. 85 pp.*

CHINA YEARBOOK, 1929–30. *Tientsin, Tientsin Press (Ltd.), 181 Victoria Road; Chicago, University of Chicago Press; [1930?]. 1267 pp.*

One chapter of this volume is on labor and includes reports for certain localities on cost of living, wholesale and retail prices, wages and working hours, woman and child labor, strikes, labor and politics, and labor unions.

DEUTSCHE GESELLSCHAFT FÜR GEWERBEHYGIENE. *Beihefte zum Zentralblatt für Gewerbehygiene und Unfallverhütung, Nr. 16: Fabrikspeisung, von Prof. Dr. E. Gotschlich und anderen. Berlin, 1930. 61 pp., illus.*

Deals with the feeding of factory workers, including articles on the scientific foundations of feeding the population, health problems in feeding of factory workers and practical measures related thereto, and a discussion of the subject in the sixth annual meeting of the German Society for Industrial Hygiene held in Heidelberg, September 18, 1929.

—— *Beihefte zum Zentralblatt für Gewerbehygiene und Unfallverhütung, Nr. 18: Fabrikbau, von Prof. Dr. Martin Hahn und anderen. Berlin, 1930. 40 pp., illus.*

Gives articles on hygienic foundations of and points of view upon factory building and on architectural development of factory buildings.

DIERKES, JOHANNES. *Die Organisation des Arbeitsmarktes. Breslau, Ferdinand Hirt, 1929. 141 pp.; charts.*

Deals with the problem of unemployment, the organization of labor markets through the public system of employment service in Germany, the laws related to the subject, and unemployment statistics.

EMPLOYMENT AID, THE. *Middle-aged workers and their adjustment to new working conditions. (Annual report.) San Francisco, Calif., 995 Market Street, February, 1930. 19 pp.*

Reviewed in this issue.

FRANKEL, LEE K. *Cost of medical care. New York, Metropolitan Life Insurance Co. Press [1930?]. 11 pp.*

Reviewed in this issue.

GAMIO, MANUEL. *Mexican immigration to the United States: A study of human migration and adjustment. Chicago, University of Chicago Press, 1930. 262 pp.*

The subjects taken up in this volume include: Sources of Mexican immigration and the distribution of immigrants in the United States; the Mexican immigrant wage earner; interracial relations; the mentality of the immigrant; immigrant attitudes and institutions; food, clothing, and dwelling; social mobility; immigration and revolution; an immigration policy; and the control of immigration.

GANDHI, M. P. *The Indian cotton textile industry, its past, present, and future. Calcutta, G. N. Mitra, 1930. 127 pp.*

The author holds that the depression from which the Indian cotton textile industry has suffered since 1923 is largely due to the unfavorable rate of exchange, to intensive competition from Japan, to over-capitalism of the mills during the war, to increased taxation and special cotton duties, high railway freights, higher labor costs, and the unsympathetic attitude of the Government, which, he holds, has preferred to favor the industry in Lancashire rather than to aid its development in India. Chapters on the early history of the industry and on handloom weaving contain material not easily accessible to the general reader.

GESELLSCHAFT FUR SOZIALE REFORM. *Schriften, Heft 83 (13. Band, Heft 3): Die Reform des Schlichtungswesens. Der wirtschaftliche Wert der Sozialpolitik. Jena, 1930. 242 pp.*

Contains a review of the proceedings of the 11th general meeting of the Society for Social Reform, held in Manheim on October 24 and 25, 1929, including addresses and discussions on the subject of conciliation and arbitration of industrial disputes in Germany.

GIFFORD, J. L. K. *Economic statistics for Australian arbitration courts. Melbourne, 1928. 110 pp.; charts. (University Press, Economic series No. 3.)*

A discussion of standards used in wage fixing, statistics of employment and unemployment, cost-of-living index numbers and similar statistical matters, prepared by a lecturer in the Queensland University for the benefit of advocates appearing before arbitration courts. The author considers that at present "the Commonwealth Bureau of Census and Statistics is not doing the statistical work necessary for arbitration courts," and hopes that if a demand for correct economic statistics can be roused among those connected with such courts, resources will be provided which will enable the bureau to adopt more efficient methods of collecting and compiling its data.

GINI, CORRADO, AND OTHERS. *Population. Chicago, University of Chicago Press, 1930. 312 pp.; maps, charts. (Harris Foundation lectures, 1929.)*

HEBERLE, RUDOLF. *Über die Mobilität der Bevölkerung in den Vereinigten Staaten. Jena, Gustav Fischer, 1929. 224 pp.*

Deals with the mobility of the population in the United States, including chapters on history and general characteristics of the population, causes and effects of its mobility, family and community life, etc. At the end of the volume is added a list of published sources.

HOBBS, SAMUEL HUNTINGTON, JR. *North Carolina, economic and social. Chapel Hill, University of North Carolina Press, 1930. 403 pp.; maps, charts.*

The publishers state that this book is, so far as they are aware, the first of its kind to appear in the United States—"an unbiased and factual account and analysis of a single State." Its chief purpose was to present in one volume an economic and social interpretation of North Carolina for the people of the State. The subjects covered include population composition and characteristics, agriculture, farm tenancy, and industry.

HUTT, W. H. *The theory of collective bargaining. London, P. S. King & Son (Ltd.), 1930. 112 pp.*

The author states that "the object of this essay is to controvert the suggestions typical of most modern economic text-books, (*a*) that there is some portion of the normal remuneration of labor which, in the absence of collective bargaining by labor is, or can be, transferred to the remuneration of other factors of production owing to labor's 'disadvantage in bargaining'; or (*b*) that combination, by increasing labor's 'bargaining power,' enables it to acquire a part of the remuneration of some other factor."

INSTITUTE OF PACIFIC RELATIONS. *Problems of the Pacific, 1929, edited by J. B. Condliffe. Proceedings of the Third Conference of the Institute of Pacific Relations, Nara and Kyoto, Japan, October 23 to November 9, 1929. Chicago, University of Chicago Press, 1930. 697 pp.; charts.*

A brief résumé of the discussion of industrial problems at this conference was given in the May, 1930, issue of the Labor Review (p. 56).

INTERNATIONAL FEDERATION OF TRADE UNIONS. *The protection of young workers. Amsterdam, 1930. 116 pp. (International Trade Union Library, reports and documents, second series, No. 1–2.)*

A summary of legislation concerning the industrial protection of young workers, in which each topic is treated by countries, alphabetically. Covers age of compulsory school attendance, minimum age of employment, hours, night work, work underground, apprenticeship, vocational education, the relation of trade-unions to young workers, holidays with pay, and similar subjects.

KENNEDY, LOUISE VENABLE. *The Negro peasant turns cityward. New York, Columbia University Press, 1930. 270 pp. (Columbia University studies in history, economics, and public law, No. 329.)*

This is the first of a series of studies conducted during the last four years under subsidy by the Social Research Council and the Columbia University Council for Research in Social Sciences. It is concerned primarily with the effects of migration upon the Negro migrants themselves, on the northern Negro group, on members of other races resident in the North, and upon the institutions in the centers in which the newcomers have settled. A number of studies have been made in the past, usually covering only one city or one aspect of the migrations. These the author has synthesized, giving under suitable subject headings first the generalizations fairly to be drawn from the available material, and following with references and quotations dealing with the aspect under consideration. A final chapter contains some suggestions as to useful lines for future investigations, and a bibliography is added as an appendix.

MALLON, J. J., AND LASCELLES, EDWARD C. T. *Poverty: Yesterday and to-day. London, Student Christian Movement Press, 1930. 100 pp.*

The writers believe that extreme poverty in England has decreased within the last 30 years, and that because of the increase in real wages due to the activities of trade-unions and trade boards, old-age and widows' pensions, meals for school children, health insurance, the workmen's compensation act, unemployment insurance, outdoor relief, and the pensions paid to disabled ex-service men, the world from the point of view of the wage earner is a far better place than it was at the beginning of the century. The social measures enumerated are the means by which the change has been brought about, but its real cause is the advance in public opinion. A generation ago poverty was accepted as a matter of course, a condition which had always existed and always would. Now, there is a general acceptance of the view "that poverty and the consequences of poverty are to be regarded as a social malady for which social action is the effective and appropriate cure." Therefore, the movement is one which society must carry on to its appropriate conclusion. "When society has done so, there will remain perhaps much social difference and hardship and inequality. But if any poverty and destitution exist, as these words are understood to-day, it will be such as men by their folly or misbehavior have brought upon themselves."

MAULDON, F. R. E. *The economics of Australian coal. Melbourne, Melbourne University Press, 1929. 280 pp.*

The author reviews the historic and economic development of the coal-mining industry in Australia to find an explanation for its present chaotic condition. Briefly, he considers that it is suffering from two causes: The increasing use of substitutes for coal and the overdevelopment of the industry so that its present productive capacity far exceeds any probable demand. Lower prices may lessen the use of substitutes, and several measures for securing these are discussed, but for the second difficulty there is no remedy except a reduction of productive capacity. This end might be obtained by a series of amalgamations which would involve the closing of uneconomic mines, the introduction of the most efficient methods, and the release from the industry of approximately 5,000 miners.

MEWES, BERNHARD. *Die erwerbestätige Jugend: Eine statistische Untersuchung. Berlin und Leipzig, Walter de Gruyter & Co., 1929. 202 pp.; charts.*

Discusses the problem of young industrial workers, including those in agriculture, mining, metal trades, chemical and textile industries, building trades, etc., with special attention to the young salaried employees.

MORGAN, CHARLOTTE E. *The origin and history of the New York Employing Printers' Association: The evolution of a trade association. New York, Columbia University Press, 1930. 139 pp. (Columbia University studies in history, economics, and public law, No. 319.)*

MUTHESIUS, HANS. *Fürsorgerecht. Berlin, Julius Springer, 1928. 184 pp. (Enziklopädie der Rechts- und Staatswissenschaft. Abteilung Rechtswissenschaft, XXXIb.)*

Deals with public welfare work in Germany, including chapters on welfare organizations, their purposes and activities, laws relating to them, and means at their disposal.

NATIONAL INDUSTRIAL CONFERENCE BOARD (INC.). *Lay-off and its prevention. New York, 247 Park Avenue, 1930. 86 pp.*

Reviewed in this issue.

—— *Systems of wage payment. New York, 247 Park Avenue, 1930. 131 pp.*

The purpose of this volume is "to examine the several systems of wage payments in use in modern industry, with reference to their possible tendencies in respect to the volume of output and its unit cost and in respect to the remuneration of the workers."

—— *Wages in the United States, 1914–1929. New York, 247 Park Avenue, 1930. 223 pp.; charts.*

This is the seventeenth in a series of reports published from time to time by the National Industrial Conference Board dealing with earnings, hours of work, and employment in American industry. The report presents data, covering the years 1914 to the end of 1929, for public utilities, building trades, railroads, agriculture, and 25 branches of manufacturing industry.

NATIONAL SOCIETY FOR THE PREVENTION OF BLINDNESS. *Publication 62: Eyes saved in industry—the experience of 583 companies. New York, 370 Seventh Avenue, 1930. 23 pp., illus.*

This report, which was first published in the National Safety News, was summarized in the June, 1930, issue of the Labor Review (p. 94).

—— *Publication 65: Proceedings of the 1929 annual conference, St. Louis, Mo., November 11–13, 1929. New York, 370 Seventh Avenue, 1930. 201 pp.*

One session of the conference was devoted to the subject of eye conservation in industry, among the subjects discussed being the rehabilitation of injured eyes and the eyes saved in industry.

SPARKS, N. *The struggle of the marine workers. New York, International Pamphlets (No. 5), 799 Broadway, 1930. 63 pp.*

UNION SUISSE DES PAYSANS ET SECRÉTARIAT DES PAYSANS SUISSES. Comité directeur. *Trente-deuxième rapport annuel, 1929. Brougg, 1930. (Publications du Secrétariat des Paysans Suisses No. 96.) 158 pp.*

This report of the executive committee of the Swiss Farmers' Union contains some data on the agricultural cooperative associations of the country.

UNITED FRUIT CO. Medical Department. *Eighteenth annual report, 1929. Boston [1930]. 451 pp., illus.*

This is a report of the general industrial and community health work of the company and contains also accounts of various special studies and of unusual cases of disease and accidents.

VERBAND DER BUCHBINDER UND PAPIERVERARBEITER DEUTSCHLANDS. *Bericht über das Geschäftsjahr, 1929. Berlin, 1930. 199 pp.*

A report on the conditions and activities during 1929 of the German unions of bookbinders and paper workers, including national and local unions, and on labor conditions in bookbinding and paper trades in Germany.

WATKINS, GORDON S. *Labor problems. New York, Thomas Y. Crowell Co., 1929. 726 pp.; charts. Revised edition.*

The several parts into which the volume is divided cover the nature and development of labor problems and their technological, psychological, economic, and social phases; the labor movement and the problems; employers and the problems; methods of industrial peace; and international control of the problems.

YENCHING UNIVERSITY. Department of Sociology. *Study of a typical Chinese town, by Leonard S. Hsu. Peiping, 1929. 16 pp.*

—— —— *Publication series C, No. 6: Observations on the social life of a North China village (Chien Ying, Wu Ching Hsien), October–December, 1924, by Jean Dickinson. Peking [n. d.]. 45 pp.*

—— Department of Sociology and Social Work. *Publication series C, No. 20: A study of crime in Peiping, by Yen Ching-yueh. Edited by Maxwell S. Stewart. Peiping, December, 1929. 29 pp.; charts.*

ZENTRALVERBAND DEUTSCHER KONSUMVEREINE. *Jahrbuch, 1929. Vols. I, II, and III. Hamburg, 1929. 670, 700, and 543 pp.*